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## ORIGINAL ARTICLES.

### PHENIC ACID OR PHENOL, COMMONLY CALLED CARBOLIC, IN TYPHOID FEVER.*

By James Robie Wood, M.D., New York.

WITHIN the first half of the twentieth century, physicians, upon examining certain cases of sickness and finding the temperature the same as ordinarily noted in health, will exclaim: "This is surely abnormal in such evident presence of disease. If the heat of this body can be increased and maintained long enough, the morbid principle will be destroyed and malignant tendencies avoided. It is strange that our medical ancestors of the nineteenth century did not fully appreciate and harness this remedial agent, *heat*, which is so potent in its benefits when directed aright, and so baneful under ignorant or careless guidance. Why did they mistake the smoke for the fire and shut up the chimney?"

Dr. J. V. Laborde, in his article on "Phenic Acid," which he lately read before the Medical Society at Bordeaux, says:

"According to Professor Lepine, it is to the experiments of Dr. Jessier, physician at Mauritius Island, that we owe the demonstration of the efficacy of phenic acid in intermittent fever, with its different types; although less successful results were obtained in typhoid fever by Pécholier and Desplats."

I quote these authorities in order to point out a common error about its use in fevers. Contrary to Dr. Jessier, I have found phenic acid of very little value in the ordinary intermittent fever, unless combined with nux vomica and ipecac, except in those cases where impure food or water is taken, or putrid emanations inhaled; then nothing is comparable with it in efficacy. In regard to results in typhoid, it is simply the decision of the preconceived and hermetically sealed idea that nothing does good in typhoid fever that does not immediately reduce the temperature—a fallacious dogma, except in the case of true eliminative treatment. But more of this later on.

Laborde continuing says:

"Paul Bert and Jolyet have demonstrated that phenol acts chiefly on the nervous system. L'acide phenique agit comme la strychnine sur l'excitabilite de la moelle." (Phenic acid acts like strychnine on the excitability of the medulla.)

Dr. Laborde has experimentally demonstrated "that the principal action of phenic acid is that of a vaso-motor excitant, which is manifested by the vascular constriction and the diminution of sensibility (anæsthesia and analgesia) and heat (athermia and antithermia). These conditions, together with the added power of phenic acid to coagulate serum, *resist the pathogenic action of the micro-organisms*, either by opposing a barrier to their introduction into the organism by intra-vascular penetration (vaso-constriction) or by putting a stop to their biological development."

Laborde continues:

"Phenic acid acts according to the general law established by Claude Bernard; that is to say '*that any substance acting electively on a special function or on the anatomical elements of that function, in such a degree as to either attenuate or suspend it, begins by exciting and increasing its power.*' Phenic acid, as Paul Bert and Jolyet have experimentally demonstrated, causes 'sensitivo-motor hyper excitability' of nervous centers, being of a convulsive nature when administered in toxic doses, but the depression of these phenomena of 'excito-motricite' also takes place, being manifested by the feeling of more or less pronounced sensibility or analgesia, and of the heat, which is rather due to an effect of a vaso-constrictor nature.

"To experimentally show the anæsthetic effect of phenic acid, use a solution of $\frac{2}{1000}$ or $\frac{3}{1000}$ in lukewarm water, and gargle the throat with it several times, and you will experience a diminution of sensibility to such a degree that the analgesic and anæsthetic effect will last a few minutes."

I thought it well to give an epitome of the opinions of some of the authorities who have thoroughly discussed this subject before proceeding with my paper.

Let us distinctly bear in mind that *phenic acid*,

* The preparations and combinations of phenic acid commonly used are, first, the plain one per cent. *solution of phenic acid*, diluted in syrup or glycerine and water. This solution serves many of the purposes for which the others are used, especially as an antiseptic. Second, *solution of ammonia phenate*, which is pure phenic acid saturated with the fumes of ammonia, and then made into a one per cent. solution, as above. Minute doses of tincture of opium are sometimes added to this solution when needed. This preparation is generally valuable in fevers, pneumonia, erysipelas, etc. Third, *solution of iodo-phenic* is simply the one per cent. solution of pure phenic acid, containing minute doses of iodine and iodide of potassium. This solution often replaces ammonia-phenate, or is used in alternation with it in the same class of cases. Fourth, *solution of sulpho-phenic* is pure phenic acid, first saturated with the fumes of ammonia and then saturated with the fumes of sulphuretted hydrogen, and then made into a one per cent. solution. This solution is used for tubercular patients, also in cases when purulent matter or eruptions are present—furuncles, carbuncles, etc. Many combinations may be extemporized with the *pure phenic solution*, but do not combine quinine with the others. Beware of highly colored carbolic, as the anilines are unsafe. It will be well to say that, in a *few individual cases*, all preparations of the carbolic acid produce great tenderness of the teeth.

as a rule, *does not directly or markedly reduce the heat in typhoid fever*. Those who try it, expecting to find a daily fall of temperature under its use, will be grieviously disappointed. Having, as it were, a soldier's military instinct, phenic acid does not cripple its ally instead of its enemy, but it may curb its impetuosity. Occasionally physicians have observed a rapid fall of temperature in typhoid and other fevers while employing it, but there must have been some peculiar conditions present whereby the phenol was made extremely active. Its persistent use controls excessive heat by preventing re-accumulations of decomposing matter.

Before taking up in detail the application of phenic acid, permit me to weary you with a rapid review of cases under various treatment, extending over a period of more than a third of a century.

The first case left in my hands was by the surgeons of a brigade during the first year of the war, and in the woods of North Carolina. It was a hopeless case, needing little more than nursing. The exigencies of the army often necessitated leaving sick soldiers behind, but the aid of neighboring physicians could always be obtained; for who is more ready and willing to ride miles over rough roads, and come with a cheerful smile to the *sick, friend or enemy*, than the country doctor? I tried to do my duty, and upon the soldier's death carried his body to his home, hundreds of miles away, to be buried, little conscious of the possible infection that was being distributed. The reason why I am so anxious to repeat that I was only a medical student then is because I shrink from the thought of permitting poor work of mine being attributed to any of that noble band of self-sacrificing men, the surgeons of the armies of the North and the South. A large number of those devoted medical men had left the comforts of home and the emoluments of lucrative practice in order to alleviate suffering, and very few of them were ever able to amend their losses after the war.

During the subsequent years of civil strife, many opportunities were afforded me to witness every form of the fever and its various shades of delirium, in camp, field and hospital. I ran through the woods to bring back some poor fevered patient, who was charging the enemy in wild delirium, and was threatened with his knife because he would not be restrained. Such cases generally quickly collapsed from exhaustion. It would hardly be profitable to enumerate the various cases then seen and their treatment, which was not satisfactory. Turpentine, the mineral acids, quinine, calomel and opium, were the chief drugs employed, and their benefits were not of such a nature as to warrant a recital.

Several army surgeons had an instinctive respect for a species of eliminative treatment. In one case, at the onset of the disease, ten grains each of calomel and jalap were given, and you may rest assured that we had elimination without discrimination. The patient recovered after a tedious illness. Others, with slightly different eliminative ideas, had better results. They used calomel alone, in small and repeated doses, followed by gentle tonics and milk diet. Still the delirium was more or less troublesome. Especially do I remember that oft-repeated cry, "I want to go home! I want to go home!"

Soon after the war, being still young, but now fortified with a medical diploma, I was summoned to assist physicians in a district where Asiatic cholera was prevailing, and as a consequence was compelled to bury many ancient ideas of practice in the graves of their failures, and found remarkable success in a treatment which I was sternly warned was *treason to employ*. Such treatment having proved infinitely better than any other then used in the Asiatic scourge, it would be hardly less than a crime, and an insult to intelligence, for any reasonable being not to believe and act upon that belief, that there were probably other diseases where the same principles might be beneficially applied. Therefore for a number of years, with varying results, I prescribed for my typhoid fever cases small doses of bryonia, rhus toxicodendron, baptisia tinctoria, vegetable charcoal, arsenic, phosphoric acid, lachesis, sulphur, belladonna, hyoscyamus and stramonium, with careful nursing, feeding, and cold and warm sponging. The results were more satisfactory than that of any other treatment then known to me, but the same tedious cases, troublesome delirium, and, occasionally intestinal hemorrhages, kept us all in constant fear and anxiety. About this time I was unfortunately captivated by Liebermeister's article on typhoid fever, his treatment being in part immense doses of quinine. Its value, according to his statistics, seemed to be very great; so in two cases I followed his directions. I copy his exact words, to prevent any danger of misstatement.

"To adults I usually give from twenty-two to forty-five grains of the sulphate or the muriate of quinia. (I find the action of the two salts in equal doses to be alike); this dose *must positively be taken within the space of half an hour, or, at the most, an hour*. I usually let them take a powder of seven and one-half grains every ten minutes until the desired amount is taken. . . . I never allow a dose to be repeated in less than twenty-four hours, and as a rule do not give it again under two days."—*Liebermeister in Zeimsen's Cyclopædia.*

The two patients to whom were administered the large doses, in exact accordance with the above directions, died without any symptom of the disease being more than very slightly, if at all, alleviated. One of these patients I must in justice state had been already much debilitated by former gastric trouble, but the other had been previously perfectly well, strong, and young. Two other cases I then had, to whom rhus, bryonia, etc., had been given, recovered perfectly. For years I have met cases which kept me in doubt for days, beginning with headache, epistaxis, diarrhœa, fever continued and increasing in the evening, but with no tympanitis and no eruption. These patients recovered within six or eight days under the use of the solutions of phenic acid. It is possible that similar cases may have crept into typhoid fever statistics.

I have applied water in various ways, but the most useful and comforting were the cold wet sheet and cold sponging without drying, the addition of vinegar being most grateful. The cold abdominal compress acted agreeably with young children.

Being convinced that there was a pernicious poison present in all cases, I did not see how the external use of cold water could destroy this poison, but could conceive of its possible advantage as a soothing and restful influence; besides, it might give energy and power of resistance to the exhausted nervous system.* As to its influence on the typhoid poison, it was too much like pouring water on a hot stove to cool it, instead of quenching the fire within. Sponging, abdominal compresses and the wet sheet were refreshing, and beneficial on that account. Now, I defy any one to develop a soothed and grateful patient by plunging him into a bath of sixty-eight or seventy degrees Fahrenheit, there to shiver and beg release. Perhaps in some cases the shock may arouse some dormant energy and give renewed vigor, but such are the exceptions.

After the failure of the quinine treatment, which was about twenty years ago, I renewed my devotion to the drugs which had served me long and fairly well, indeed much more efficiently than any other treatment. Meeting several cases with dangerous hemorrhages, I longed for something which might have at least a shadow of certainty, so that such bedsides might be approached leaning on the comforting support of confidence in the treatment used. It was not long before phenic acid was suggested to me by one of its warmest advocates, and several occasions appeared which strengthened my opinion of its antiseptic qualities in a number of diseases; so, upon the appearance of any fevers that bore the slightest resemblance to typhoid the phenic acid was immediately administered. Unfortunately a number of these cases were of the character described earlier in this paper—epistaxis, headache, diarrhœa, continued fever, increasing in the evening—but as they were without eruption, and little or no abdominal tenderness, and were well in six or eight days, I had to reject them. Very soon I began to wonder why I had so few cases of typhoid. The eruption appeared at last in one case, and as the patient, an obstinate and intemperate woman, after six or seven days would take no more carbolic, to which she had a great aversion, she was let alone—thinking possibly the carbolic had done its work—with simply food and plenty of water. Her fever never rose to any alarming degree, and she was perfectly well by the twenty-first day.

To each suspicious case, as it appeared, that had continued fever, I immediately began by giving tablespoonful doses every two hours of the one per cent. *solution of ammonia-phenate*, but if symptoms developed resembling the peculiarities of the fevers produced by bryonia, rhus, baptisia and others, I gladly added these precious drugs to my ammunition. As confidence increased in the phenol, I visited patients with decided pleasure instead of anxious fear. After a while I began to wonder where all the desperate typhoid fever cases had gone. Once I was annoyed and mortified by being told by one of the family of a patient under my care: "Of course, doctor, we understand these cases pretty well, as all my cousin's children had it in the most terrible form. Every one of them came nearly to death's door, and their doctor brought them through splendidly by using gallons of brandy. My cousin sends every day, desiring that I shall feed this patient on brandy, *but as it is such a very mild case*, I shall not interfere; however, if unpleasant symptoms develop, you will not object to my calling their physician in consultation, as he might be of great assistance to you." I tried to be polite, but fear flesh and blood did not succeed perfectly. When I look back and remember the delightf expressions of gratitude, and my increased bank account, as well as new patients, sent on account of my "dragging their dear sick friend from the very jaws of death," I thought, How thankless it is after all! So we must try to be content with doing well purely and simply for the love of curing speedily and thoroughly.

I shall now describe one case in detail, which is a very fair illustration of the treatment and its results, with an additional advantage, as the patient, a young lady of seventeen, positively refused to take any more of the phenic acid after the twelfth dose, and I humored her whim during the days of doubt as to diagnosis. Her high temperature, increasing in the evening, headache, abdominal symptoms and peculiarities of pulse made the case suspicious. Besides, she had just come from a country place where typhoid was prevalent. When asked to name the disease, I said: "I cannot for some days; although there are symptoms of typhoid, it may be some milder fever." The ammonia phenate was prescribed, a tablespoonful every two hours day and night, when she was not sleeping. After the twelfth dose she rebelled against its taste, so I used baptisia tinctoria alone. A little diarrhœa continued, but suddenly, on the ninth day, the bowels became very loose, and the eruption simultaneously blossomed out upon the abdomen, and increased the next day. Phenic acid was immediately resumed, and she had for a few hours a tablespoonful given every hour; the time between doses was then gradually lengthened to two hours. Involuntary discharges began, and for this I ordered thirty drops of pure Calvert's No. 1 carbolic acid, mixed with a tablespoonful glycer-

* "The number of red corpuscles is often considerably reduced in fevers. After a ten minutes' bath at about 27° C., the number is usually found to have increased by from 100,000 to 500,000 per cubic millimetre. In healthy individuals the same phenomena is observed, though the increase, as a rule, is less marked. If artificial hyperpyrexia be determined in a rabbit by placing it in an apparatus heated to 32° C., it is found that when the animal's temperature reaches 40° C. and over, the number of red corpuscles is greatly reduced in the blood of the auricular vein. In the liver, on the other hand, the number is greatly increased. Baths, therefore, exert a tonic influence on the circulation, as a consequence of which this partial stagnation is relieved. The antipyretic action of a bath is only of secondary importance."—*Dr. Jaquet (Balse)*.

ine and a pint of warm starch water for a clyster, to be repeated in six hours if needed. It was not necessary to repeat, as the internal doses began to have an effect, and I was not quite sure of the action of thirty drops if retained too long. Had its retention caused anxiety, however, I would have given another full injection of warm water or soap suds. Injections benefit the patient by washing away morbid matter lodged along the colon. Every stool and tainted cloth was saturated with a chloride of zinc solution. This was not so necessary after a few days, although it was continued for safety. Herein lies one of the great advantages of the internal use of phenic acid, and also proves what was asserted in the August number of THE MEDICAL TIMES, "that carbolic acid is *not a disinfectant but an antiseptic.*" For several days after beginning the phenol, offensive discharges continued, then the odor slowly disappeared as the putrid accumulations were eliminated with the passages; *then the antiseptic action* of the carbolic acid *prevented further putrefaction.* A second time this young woman rebelled against the phenic; but as the temperature was not great, the nurse was ordered to reduce it to four doses a day. From the fourteenth to the twenty-first day there were very slight manifestations of fever, which were recognized by the thermometer only, the general appearance of the patient being one of perfect comfort, except her objection to being kept in bed, as she thought, needlessly. On the twenty-first day the fever disappeared entirely.

Another comfort, especially to lady patients, is that the phenic acid, when freely used, seems to prevent excessive falling out of the hair.

Milk, eggs, and broth in small quantities were given, with plenty of pure water. A small glass of wine was allowed several times during the sickness; but as a rule, except for exhaustion, it is well to be careful in advising its use. This patient had one cold wet sheet applied, and after that cool vinegar and water spongings once or twice a day, as a matter of comfort, when her heat was high, which ranged between 103 and 104 3-10° Fahrenheit for some days.

I have stated that the phenic acid does not, as a rule, reduce a high temperature; yet in some cases, as in the one just narrated, the temperature falls within the second week, and often earlier. This can be accounted for by the thorough elimination of the offensive intestinal matter, injections being potent factors. As soon as this constant source of re-infection is eliminated from the bowels, then carbolic acid may and does exert its full antiseptic and obstructive qualities. What are these qualities? Of its antiseptic character I have already spoken, but will say further that it either prevents fermentation by forming insoluble compounds within the intestines, or directly affects the morbid matter, which may or may not be the results of the increase of micro-organisms. On the other hand, by contracting the minute intestinal blood-vessels and coagulating serum, it prevents the microbes from passing through the intestinal walls. If large numbers have not already penetrated and reached the general circulation, they may soon be antagonized by the saturation of the tissues by the phenol. But if the case had proceeded too far before the remedy was administered, then 100 minims of a two per cent. solution of phenic acid should be hypodermically injected in the cellular tissue of the abdomen, using a large-barrelled syringe, and repeating three or four times a day if necessary, in addition to the internal medication. Another very valuable advantage of this chemical is that strychnine is seldom or never needed to help it whip up the heart; for it not only prevents the poisoning of the heart's walls, but in a safe manner sustains its muscular action.

To review the general plan of treatment: When called to a suspicious case of continued fever, immediately begin with one of the solutions of phenic acid (being very careful that it is not highly colored with the anilines, as they are the only serious irritants. A beautiful red is not safe). To an adult give a tablespoonful of the one per cent. solution every two hours, adding, if you choose, remedies sometimes called *alteratives*, on account of the fear of a celebrated old German ghost which abides in many medical closets. These alteratives, or remedies which under certain conditions produce a toxæmia closely resembling typhoid, you will find of inestimable value in helping you to clean and perfect cures. Unfortunately, many patients have been listed as recovered who never regained perfect health to their dying day. Extensive internal adhesions, diseased bones and various other unfortunate sequences are often found, which are directly traceable to the long, low typhoid fever suffered from many years before. What honest man will call these recoveries?

Even if a case prove to be not typhoid, the medicine, especially ammonia phenate, will be beneficial in the majority of such continued fevers. A patient may or may not require cold sponging. Judge by the heat and irritability of the person. For headache and delirium, cold compresses, applied *often* to the head and closely pressed down upon the *whole* scalp, are decidedly beneficial, and most rational and effective; cooling the heated head, contracting blood-vessels and quieting the nerves as few or no drugs can do. In one case, where delirium had been slightly troublesome, pleasant nights were obtained by occasional five-grain doses of "*Lactophenin.*" The dose recommended by its makers was found unnecessarily large and possibly a little unsafe.

There is very little more to say as to the management of ordinary cases, which you ave been able to arrest before any serious developments. Simply continue the remedy in more or less frequent doses, and you will find few other medicines needed.* Add to this a wise use of food and drinks and mental rest.

* Dr. John Aulde, of Philadelphia, says he aborts typhoid fever by giving one hundredth of a grain of *arsenite of copper, with appropriate constitutional remedies.* It may be used hypodermically in advanced stages. Dr. J. C. Woodbridge combines eliminative and antiseptic treatment. He gives one two-hundredth of a grain of podo-

But you may be called to much more serious cases. Patients neglected or improperly treated, or beginning with unusually severe symptoms, their tissues surcharged with toxic matter, unconscious or livid, with every prospect of speedy dissolution—what are you to do in such cases? Manifestly, small doses of a chemical remedy would require too many days to accumulate sufficient antidotal power, and a life would in all probability escape from its earthly tenement; and you would condemn the treatment, and perhaps lose forever its blessings in future fevers.

In such cases I might greatly increase the phenic acid internally, hypodermically and per rectum, largely diluted in water. *But I cannot as yet dare so much*, unless with my own person first to practice on. Can we do anything safer and as efficient? Just as I was propounding this query to myself, the *Medical Record* of September 14, 1895, with Thistle's article on typhoid, came to me. I must have rather hastily scanned Thistle's former paper, as it did not strike me with the force of this article on "Eliminative and Antiseptic Treatment of Typhoid."

*As we have no right to use a dangerous and untried dose in any given case, if there is a safer means of reaching the same result*, therefore I offer his suggestions, with but few notes or comments, as the most efficient and rational means of eliminating the poison; *but after thorough elimination* I should certainly expect to get better results by not provoking the incessant movements after the way had been prepared for the carbolic acid to hold and safely carry the patient to health and strength. Dr. Thistle's losses were five out of one hundred and seventy-two, or three per cent. In order to give an example of his procedure, the following case is transcribed from his article:

"*Case II.* . . . I was asked to see him in the absence of Dr. Graham. He had been ill for two weeks, and had been in the hospital for five days. Temperature, 104⅘ degrees Fahrenheit, when seen on the evening of the fifth day (Thursday). At the time of my visit, he was profoundly unconscious, with greatly distended abdomen, stertorous and rattling breathing, jaw fallen, tongue dry, tremulous and spasmodic conditions of muscles, snbsultus, and picking at the bedclothes. In fact, he seemed to be *in extremis*. I advised magnesia sulphate, half an ounce at once, and continued in drachm doses every hour, and plenty of fluid. In addition, in order to hold him until toxæmia should lessen, strychnia and whiskey were given at intervals. This was on Thursday evening, the 16th, and on Saturday morning he was quite conscious. Purgatives were continued vigorously. Condition continued to improve, and on the 22d, the temperature became normal; subsequently it rose slightly, and again became normal on the 27th, to continue so. In this case I am convinced the patient would have died in a very short time if the toxæmia had not been quickly lessened."

Dr. Thistle does not set a particular store on any one cathartic, as besides Epsom salts he used calomel, Rochelle salts, and even compound cathartic pills; but he insisted on seeing that they produced their cathartic action. Often he found it difficult to keep up a sufficient action of the bowels, even with strong cathartics. A heroic treatment, certainly, but better far than most other means used in such cases. I have sometimes begun with mild elimination, then pressed steadily on with carbolic acid. For such severe cases as he describes, especially when long neglected, a thorough washing out, both per rectum and stomach, is necessary, with large quantities of warm water.

There are serious symptoms which may appear in a few cases, but I have seen none of these where the phenic acid had been used early and freely. Yet they may occur in neglected cases. Sometimes the tendency to severe hemorrhage may be shown by the fever beginning with a long-continued epistaxis, especially if it be a very dark blood. In such cases, for fear of the development of dangerous hemorrhagic conditions, it is well to give daily doses of *lachesis*. If vomiting is troublesome and frequent, very minute doses of *ipecac* are often useful, even when blood is vomited. After a severe hemorrhage, especially if the patient has constant ringing in the ears, and also after excessive perspiration, a few drops of *tincture of cinchona* in water has at times a most pleasant effect, and in these very small doses it often proves a sufficient tonic while a patient is recovering.

Until we find some surer, safer and gentler means to combat this disease, let us turn to England and her Thistle for its mechanical treatment; to France and Declat for the chemical; and if our prejudices do not frighten us with imaginary chasms and precipices, let us step over the borders of Alsace and Lorraine, and add to our repertory the wisdom of *that dear old dead German, whose great, broad, God-endowed mind will still more brightly shine on after the rolling centuries have numbered their thirties*, while others of this nineteenth century, whom we now fondly look upon as among the immortals, will have been lost in oblivion forever.

It may be asked: "If Hahnemann's principles are so potent, why do you not depend wholly upon his law to carry you through such desperate cases?" Simply for these reasons, if I must declare the faith that is within me. It was his province to elaborate the *law of similars*, but unfortunately it is too true that there is scarcely a *very great* human mind which, even though it be broad as the universe in one direction, is not

phyllin, combined with one-sixteenth of a grain each of calomel, thymol and guaiacol carbonate, every two hours. Later he increases the thymol and guaiacol carbonate. These are given liberally, avoiding too free catharsis. After a few days the cathartics are withheld, and eucalyptol (5 grains), guaiacol carbonate (4 grains), thymol (2 grains), and menthol (¼ grain), are given at intervals to the end of the attack. It is claimed that the patients are well in ten or twelve days. Others consider the naphtha preparations and strychnine their sheet anchor. Some think *entire abstinence from all food*, using plenty of water instead, with occasional doses of anti-ferments and antiseptics, all sufficient. The cases reported were certainly much longer under treatment than those where phenic acid was persistently used, with very light diet.

dragged down by some petty and insignificant quality in another. This has been of late especially observed among some of the greatest minds of France. It is only among the mental mediocrities that even an approach to a perfect balance is ever found.

Irritated and embittered as he was by unjust persecution, and with his vision constantly and intently directed toward the *law of similars*, it was morally impossible for him to consider other views equally worthy of belief. Besides, it would have been a great detriment to the development of the law, for him to have divided his opinion between the *law of similars and chemical and mechanical laws* of cure.

True medicine has been described as a *triangle*, the short side representing the mechanical laws of cure; the next, and longer, the chemical; the third, and by far the longest side, declares what some choose to name *alterative*. But the early death of prejudice will wash out that word—a mere meaningless subterfuge, and immediately, with eternal letters, in its place, will write that law, the symbol of which God proclaimed in the wilderness to the children of Israel when he raised the brazen serpent, and bade them look upon it and be healed of the venomous bites of the serpents within their camp.

## THE HEALTH RESORTS AND BATHS OF EUROPE AND AFRICA.*

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### II.

### INTERMEDIATE CLIMATES.

There exist in Europe a very considerable number of health resorts and bathing places which cannot be called tonic, and yet they are not distinctly sedative. I have called these climates "intermediate" as best describing them, coming as they do between the sedative and the tonic climates. It must be very evident that in this large class there are considerable variations to be found within certain limits, some climates approaching more closely to the true tonic, and others being more like the purely sedative. There is consequently a very considerable difference between Biarritz, which is situated on the sea coast, and Meran, which lies in the Austrian Tyrol on the south side of the Alps; yet both are intermediate climates. I shall in the following article take Biarritz as a typical instance of this class of climate, as found *along, or close to the shores of a sea*, and I will give at the end of the article the names of other health resorts or stations, which are of a similar character and therapeutic value.

*Biarritz:* Season (American and English) November till June, is a rapidly rising watering place situated on the southwest coast of France on the Bay of Biscay, and with a fine, sandy beach, which is washed by the rolling waves of the Atlantic Ocean. It is fourteen hours by express train from Paris and one hour by rail from the Spanish frontier, situated in the Department of the Basses Pyrenees, and in close proximity to the mountains; it is liable to be very rainy in the months of November and December. Snow often falls in January and February; it does not, however, remain long. In March there are often strong gales of wind blowing in from the Atlantic Ocean, with a splendid sea dashing up over the rocks, which stand out some distance into the bay, affording an unusually magnificent sight to admirers of ocean shore scenery; some of the most beautiful pictures, with that marvelous coloring, such as cannot, perhaps, be found on any other coast have been painted here by a very celebrated American artist, who is as widely known in Paris for his splendid work as he is in America.

April, May and June are most perfect months, not too hot, yet warm enough for sea bathing and not too hot for golf (and Barritz possesses one of the best golf links in Europe), and not too hot for hunting. The town is full of visitors during the early spring months, and there is plenty of good society. As at Pau, there is a complete absence of that element which often prevents families from staying at Continental health resorts. The municipality, unlike that of Pau (Biarritz is four hours by *uncomfortable* rail from Pau), is fully alive to the interests of their town, and unsatisfactory persons of the feminine gender, singular number, are quickly advised to go to some other place if they wish to avoid difficulties with the authorities. The Mayor (Monsieur Mouren) is one of the most intelligent and broad-minded of officials, always ready to listen to any serious suggestion from American, English or other foreigners that can tend to the progress and improvement of the town, and the whole municipal council is composed of well-disposed, business-like men, who desire, before all, that the splendid and ever-growing reputation of the place should be maintained, and the comfort, convenience, amusement and health of the visitors should be its first care. Three or four of the proprietors of the best hotels are also members of the town council, and are always on the lookout for improvements to be done and the best means to do them. I may add that at Biarritz there are also two English physicians of unusual merit, one of whom has been many years resident, whose skill and attention has long commanded the highest esteem and the greatest confidence. There are excellent English pharmacies; the Pharmacy Mouren being the best known and most patronized; an excellent American dentist, and an Episcopal church, where a good Anglican service is the rule, without any extremes or innovations; the chaplain is not only a good churchman and an excellent priest, but a kind and cheerful friend to those who are in sadness or sickness. Indeed, Biarritz is exceptionally fortunate in this respect, and its popular chaplain and his charming wife are not an unimportant element in the pleasant life of the place. The months of July and August are hot; these are the

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months when all the English and Americans go away, and the French and Spaniards fill the place. Sea bathing is the great attraction. The sea breezes cause the nights to be cool and pleasant, and Spaniards from their arid plains and the burning sun of Madrid find all they desire here. In September and October the climate is still very warm, but now the Russians, mostly of the royal and highest families, come here; in fact these are the months of the *Russian season*. The Russian nobility most commonly stay at the Hotel Continental, which is most beautifully placed, with splendid sea views, airy, with perfect sanitary arrangements, and a cuisine which cannot be surpassed.

In the end of October and on into November, the air is mild and humid, and the period of rainy days begins.

Such are the general physical and social facts of Biarritz. Now to consider more particularly the therapeutic value of the place, because the special reason of this article is to tell in simple language what the place is good for in a medical sense. It must be within the experience of every physician who read this article that there are many people who cannot stand a strong, bracing, tonic air; they become sleepless, nervous; the digestive functions suffer, and they feel themselves generally uncomfortable. Physicians begin, happily, to recognize the very important fact that a tonic climate is no more suited to every case of ill health than strychnine is to every case of paralysis, to a patient sleeping badly and generally debilitated. The advice always given a few years ago, by the physician, was to go to a "bracing place" and *get toned up*. I have seen many of these cases at these "bracing places;" often the sleeplessness increases; dangerous and objectionable drugs, as chloral, opium, etc., are then resorted to; the patient become worse in other respects, and the last state of that man is worse than the first. Tonic climates, as I hope to point out, when I come to deal with them, have their place, and a most important place in the climatic treatment of disease, but they are not any more suited to every case of ill health or nervous breakdown, than electricity is suited to every case of neuralgia, or opium to every case of sleeplessness. On the other hand, if you send these patients to a sedative climate, they become depressed, indisposed to healthy exercise, and the general tone of the bodily and mental functions is still further lowered, instead of steadied and strengthened. What is required is a climate sufficiently sedative to calm excitement and irritation, yet not to a point of sedation approaching to such a degree as to produce anything like a feeling of "slackness" or depression, at the same time bracing enough to improve the general tone of the digestive organs and nervous system, and yet not tonic to a point which will so excite the nervous centers as to give the inclination to too great exercise, which exhausts instead of strengthening the individual, and in a general way increase rather than lessen the irritability of the whole nervous system, which is the condition *underlying* all these cases of what we physicians now call neurasthenia, and you find exactly these combined climatic conditions at Barritz and other co-related resorts. It is probably due to these advantages of a soothing, yet not depressing, a bracing, yet not exciting air, which that great English statesman, W. E. Gladstone, has found so useful in restoring vigor and harmony of function without excitement or depression to that powerful mind which has been for so long the admiration of both friends and foes. Every year during the last few years Mr. Gladstone has passed a certain time in the early spring at Biarritz.

The special class of cases which are suitable to be sent to Biarritz, then, are:

*First*: Cases requiring *rest*. The town is not a large one; it is indeed, at present, only a species of large village which would probably have remained still but a well-to-do fishing village, had not the Empress Eugenie been attracted by its beauty, away back in the fifties, and built here a chateau (now the Grand Hotel du Palais), where she passed a few pleasant weeks each year to rest and enjoy the restorative air. *Rest* then is possible here, in a sense that it is not possible at such places as Nice, Brighton or Rome, all of which are bigger places, and consequently more *restless* to the patient needing *quiet* and amusement out-doors, and not too much society life. Cases then of business and professional men who have become weakened in the struggle of life, or who in becoming rich have overworked themselves, or patients suffering from the effects of moral griefs, anxieties, or other depressing emotions, do well here. Hysteria, melancholia, brain fag, neuralgia, sleeplessness, and anæmia, are cases that are almost invariably benefited here. For those who take plenty of exercise I should recommend patients suffering from chronic dyspepsia and allied digestive troubles to go to Biarritz. Many forms of chronic bronchitis and incipient cases of consumption are also often marvelously improved here, particularly cases with a tendency to hemorrhage. Cases of rheumatism and gout, as a rule, find the climate too humid, and are better in a drier air. In addition to these cases there are now a very large number of patients going every year to the saline baths which have been opened within the last three years, a spring, or more than one, having been discovered, which being very rich in alkaline mineral elements, an excellent modern establishment has been built, and is not only a most popular bathing establishment, but the results in cases of certain diseases of women, particularly those due to anæmia and fibroid disease, are very striking. There are baths, douches, etc., of every kind; electricity and massage (on the Aix-les-Bains principle), and some cases of muscular weakness and infantile paralysis which I have sent there, have, under the care of my excellent confrere, Dr. de Lostalot, improved very much. I may add that Dr. de Lostalot is one of the physicians of the thermal establishment, and his practice is confined wholly to cases sent to him for thermal treatment at the baths. I shall have much more, however, to say on the subject of the

thermal waters of Biarritz when I come to the classification of the baths and spas of Europe.

To Biarritz, then, should be sent:

*First:* Cases where *rest* and a soothing, refreshing, restorative air is required, as in all cases of nervous breakdown, etc.

*Second:* Cases of chronic bronchitis, where, however, there is not any great physical weakness, or asthmatic symptoms, or heart trouble; cases of incipient phthisis, if the patient is well enough to be much out in the open air; cases of digestive disturbances, etc., if the patient can take sufficient exercise.

*Third:* A great variety of cases for which the baths are suitable, but which I shall more especially indicate in a future article.

### PLACES THAT RESEMBLE BARRITZ IN A GENERAL CLIMATIC SENSE.

These are many, and to one or two I shall especially devote at a future time an article.

*St. Jean-de-Luz* is a very short hour by train from Biarritz; on the coast; has a similar climate, is much more dull, has nothing very much to interest people, but has excellent *cheap* hotels, etc.

*St. Sebastian* is two hours from Biarritz and over the Spanish frontier; it is well built; has excellent hotels, a bull ring, and many charming walks and drives. Very few Americans or English visit it, and in winter it is deserted by foreigners.

*Tangiers* (*Morocco*), has a soft, genial climate, much warmer than Biarritz in winter. It is one hour across the Straits of Gibraltar, but the steamers generally take longer; the passage is often rough. It is an old Oriental town, with one long street in the middle, which has not been paved or mended since 1670. There are several good hotels; the best is the Villa de France. English doctor.

Throat affections appear to do better here than almost anywhere. December and January are very rainy indeed.

*Algiers:* Special article later on.

*Ajaccio* (*Corsica*), fourteen hours by steamer from Marseilles. The climate is very like Biarritz, in many respects, but it has the advantage of more sun, fewer rainy days, and the atmosphere is consequently less humid. It has the same mild, pleasant climate as Biarritz, and, moreover, it is better suited to gout and rheumatism than Biarritz. Shooting can be obtained in the neighborhood for those who like sport, but for any long residence there is very little to amuse or interest the visitors, and life becomes monotonous. In this respect Biarritz has an immense advantage, being at the same time nearer to all the great centers of civilization in Europe.

There are many less important small places with a similar climate on the seaboard of Continental Europe, but the greater proportion of intermediate climates lie inland, amid the mountains, or on the undulating plains, and which we shall study together in future chapters.

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**Deal with absolute fairness to all men at all times.**

## A NEW AND SANITARY NURSING DEVICE.*

***Considered in Conjunction with Mouth Digestion in Infants, and Do Nursing Bottles Injest Food Properly; and Do They in Any Degree Aid Digestion or Prevent Indigestion?***

BY WM. MORE DECKER, M. D., KINGSTON, N. Y.

THE broadest, most important and, in some respects, most neglected topic in paediatrics is infant feeding. Nearly all the disorders of babyhood, and the large mortality of that period of life—larger than at any other period—are due to improper feeding.

The late Dr. E. H. Ruddock, in his little work on diet, says: "Infancy is not naturally a period of sickness, but it is a time in which sickness is often induced by errors in diet. Indeed, there is no more fruitful source of suffering and death, at this period, than unsuitable or excessive feeding."

All well informed physicians, in infantile disorders, lay much stress on too frequent, irregular and excessive feeding, unsuitable food, and the early incorporation of adult's food into an infant's dietary as the chief cause of disease in infants, but they say little or nothing about the nursing bottle as a cause of ill health, apparently forgetting the fact that the nursing bottle is one of the chief factors in infant feeding.

Artificial feeding of infants is largely on the increase, as evidenced by the large variety of infant's foods now on the market, and the great and constantly increasing demand for them. What is the matter with the American woman's breast, that it should fail to supply her offspring with milk? That question demands thorough investigation, and I cannot now stop to consider it, but I believe it to be a fact, though I have no statistics, that more than one-half of our American women fail to nurse their babes. This is a deplorable state of motherhood, but when the human breast fails the nursing bottle becomes the medium through which a babe imbibes its food. To neglect the nursing bottle, therefore, is malpractice and cruelty to mankind. I think it eminently proper, at this session of our State Society, to start a society for the prevention of cruelty to infants, for most of the disorders and suffering of infancy can be prevented, and, of all mankind, infants are the most abused, misunderstood and ill-treated—through ignorance and love.

A little child said to a fly on a window pane: "Fly, fly, do you love Dod? Den go to Dod." (Killing the fly.) And many infants die, and we say of them: "Of such is the Kingdom of Heaven;" but did it ever occur to you that God was mocked; and that their death was due to somebody's ignorance? What is this but malpractice and cruelty to infants? We need to enlighten ourselves, and then enlighten the mothers. We must study the physiology of infancy, and learn that the key to their proper treatment consists largely in hygienic and preventive measures.

Again, a physician to treat infants successfully,

* Read before the Homœopathic Medical Society of the State of New York.

must pay great attention to detail. He must not only inspect the infant, and find out all about it, but he must inspect the soiled diaper and the nursing bottle. He must not only determine the kind of food for each individual infant, but he must prescribe its preparation, quantity for a feeding, the frequency of feeding; and if the babe is on a bottle, he must not leave the selection and care of a nursing bottle to a parent. That belongs to the duty of a physician, as much so as the administration of medicine. No physician will succeed in prescribing for nursing children who does not prescribe for the attendant, and for the nursing bottle. He must do his whole duty. The medium through which food is conveyed to a child's stomach should receive as much careful attention as the food which enters the stomach. If the one is all right and the other all wrong, how can you succeed with the case? But physicians will attend to the food, and neglect the bottle; they will prescribe for the child, but neglect the mother or grandmother, and fail to influence and control their action in reference to the child. Include every person and thing that has to do with a sick babe, in your prescription; and then you have performed your whole duty, and will seldom fail to cure the case.

The medical profession have been content with the nursing bottle as they found it. They have deplored its use, but have been content with its defects, regarding them as a necessary evil. Again, they have considered nursing bottles collectively, as though there was only one nursing bottle; and it must be that or nothing—or they have regarded them as all alike, without distinction; and they have said to a mother, when her breast failed: "Put your child on a nursing bottle," and left her to make her own choice of bottles and nipples. This heedless disregard on the part of the profession, in prescribing a vehicle for an infant's food, is all wrong. How a babe's food is imbibed is of great importance, and we should study nursing bottles the same as we study diet.

What would you think of an oculist, if, after examining a patient's eyes, he should say to him: "You need glasses," and left the patient to select his own glasses? You should think the same of that physician who prescribes nursing bottles without instructions.

Nursing devices may be classified generally under two species; first, those with a tube entering the receptacle, which is emptied entirely by suction, without tipping the bottle; and second, those known as gravity devices, which are only emptied by raising the base of the receptacle, which causes the fluid to gravitate to the nipple as rapidly as a babe ingrests it.

Both classes of nursing devices have bottle receptacles. They are, therefore, difficult to clean, and a funnel is required to fill them, and that must be cleaned.

Again, both classes are difficult to clean because they have the ordinary nipples, which are variable in form; but the forms most in use are so contracted that they cannot be turned inside out, therefore, cleanliness is difficult, and apt to be incomplete.

In both classes of nursing bottles the nipples are of excessive length, so that they frequently gag or choke a babe, and they discharge the milk too far into the mouth; in fact, they carry the milk nearly beyond the mouth, and it is ingested too fast. Of the two classes, however, the gravity class is less objectionable, for they are less complicated, more cleanly, and the safer class to use; and a babe on a gravity bottle is usually held while feeding, which is the natural position for a nursing child, and the food may be given slowly if the nurse manages the bottle properly.

The tubular class of nursing bottles are death traps to infants, because the tube is next to impos-

sible to clean, and it is never cleaned thoroughly.

There is still another class of nursing bottles, known as air-vent bottles. A general objection to all nursing bottles is that they feed too fast, but the air-vent bottles are the most rapid feeders known, therefore they should be styled racers. These bottles also have complicated nipples of excessive length, which, taken in conjunction with rapid nursing, makes this class of nursing bottles unfit for infant feeding.

Such being the state of the art in nursing bottles, I have attempted to create a new and sanitary nursing device that would do away, as far as possible, with the objectionable features and faults of the classes described, and I leave it to the

medical profession to judge how well I have succeeded.

On preceding page is a nursing device* made up of two parts—a glass cell receptacle and an elastic breast nipple.

The receptacle is an open cell, cylindrical in form, with outlet uncontracted, that makes it as large at its mouth as at any other point, and it has no angles or grooves for the collection or retention of refuse material; therefore cleanliness is positive and easy; no funnel is required to fill it, no brush is required to clean it, and when not in use for feeding it serves as a cup for the breast nipple. The receptacle also has a graduated scale to estimate its contents.

The elastic breast nipple, in form, is like a woman's breast. The nipple is short and continuous with the breast, which restricts a babe to a natural hold on the nipple and affords a soft cushion for an infant's lips and face. The nipple cannot be forced into the mouth; it will not choke or gag a babe, and it discharges the milk in the forward portion of the buccal cavity, instead of directly down the throat, and food is ingested more slowly than from the common nursing bottles.

The breast nipple is reversible; therefore, it can be as easily and thoroughly cleaned inside as out; and it is, also, non-collapsible, and regulates the ingestion of liquid food.

The breast nipple, when drawn over the flange about the mouth of the receptacle, completes the nursing device, which is emptied by the combined action of gravity and suction.

I have designed a metallic holder to use in sterilizing the nursing device. In each end of the holder there is a circular opening, The larger opening is for the cell and the smaller for the breast nipple. To sterilize either part, place it in the holder and submerge it in boiling water, or scald it.

Let us now take up the question of mouth digestion in infants. There is no such thing as mouth digestion in nursing infants, and in adults no digestion takes place in the mouth other than the action of the salivary secretions on starch. In babes fed on milk there is no starch to digest, and their salivary glands are quite inactive until about the third month of life. What, then, do we mean by mouth digestion? Mouth digestion is mouth preparation—the preparation of food in the mouth for the stomach. Such is the case in adults, who feed on mixed and solid foods; but is it true of infants that subsist on liquid diet? I believe it is, and I will state the facts that confirm my belief.

In the feeding of infants, much depends on how the swallows homeward fly. The digestion of milk is promoted or retarded according to how it is swallowed. If it is swallowed rapidly and the quantity to each swallow is large, it coagulates in the stomach in massive, compact curds, which are difficult to digest. If it is swallowed slowly and a little at a time, it coagulates in small, soft curds, which are easily digested. This is true of either human or cow's milk, though the latter coagulates in larger and harder curds, and is therefore slower to digest than human milk. The difference in the coagulation of human and cow's milk is also accounted for, in part, by the difference in their reaction. Human milk is alkaline; cow's milk is neutral, or slightly acid.

Again, the digestion of milk is promoted, or retarded, according to the quantity of mouth secretions mingled with it. Mouth secretions are usually increased during the ingestion of food, and the presence of milk or any food in the mouth increases the flow of saliva, so that the more slowly milk is imbibed, the more saliva will be mixed with it. Now, what is the influence of mouth secretion, or saliva, on the digestion of milk? It retards the coagulation of milk, because it increases its alkalinity; and the resulting curds are softer and more porous. Mouth secretions also promote the secretion of gastric juice, hasten digestion and prevent acidity, or fermentation, in the stomach. Therefore they prevent or lessen colic. The above influences are imperfectly accomplished artificially by the addition of lime-water to milk. Colicky babies are relieved when the saliva is abundant, and it usually is abundant by the third month; but some nurses and mothers, who are ignorant of the influence of this natural alkaline secretion on the digestion of milk, declare that it is a three months' colic, and that it cannot be cured before that time. Infants that are fed properly seldom have colic. If an infant has colic for three months some one is to blame, and they deserve to be arrested for cruelty.

The question may be raised, if the mouth secretions are so important in infantile digestion, why are the salivary secretions delayed two or three months? The salivary glands are rudimentary at birth, and afford little or no secretion then, because the condition of woman's milk, for the first few months of lactation, is such that saliva is not essential, for the milk is easily digested without it. Human milk, at the beginning of lactation, contains more fat and sugar than at any other time; but those ingredients make no demands on the stomach. And, for the first few months of lactation, the milk is more watery, and the casein is at its minimum. That state of the milk, taken in connection with the fact that a babe at the breast at first only imbibes about one ounce of milk at a nursing, makes the amount of curd to be digested very small. But while the sugar, fat and water in the milk gradually decrease, and the casein gradually increases, the salivary glands are developing; and, at the age of three months, when a babe digests two ounces of milk at a feeding, the salivary secretion is ample to induce the changes favorable to digestion in the manner previously stated.

Now, let us consider normal ingestion of milk by a babe at the breast. A babe three months old will nurse two ounces of milk from its mother's breast in from ten to fifteen minutes. That is a full meal. If the time occupied in nursing was fifteen minutes, then, at the rate of one swallow every four seconds, it would take 225 swallows to

* For sale by the drug trade of New York City.

carry two ounces of milk into a babe's stomach; and the average amount of milk to each swallow would be only $4\frac{4}{5}$ drops. That is normal ingestion of milk. It is ingested slowly, at intervals, and in small quantities. The amount of milk ingested with each swallow is small, and the curds are still smaller. The secretions of the mouth have been increased by the length of the meal; and they have mingled with each portion of milk swallowed, and will exert their full influence on the milk and the stomach; and all the conditions that prepare milk for easy digestion in the stomach have been met and complied with.

Let us turn now from the breast to nursing bottles; from natural to artificial ingestion of food, and answer the following questions: Do nursing bottles ingest food properly, and do they in any degree aid digestion, or prevent indigestion? They do not. When we leave the breast everything is artificial—the food and its administration. Art has not yet surpassed Nature in the feeding of babies. The nursing bottles now on the market feed too fast. A babe three months old will ingest two ounces of milk from a nursing bottle in three minutes. It takes a babe at the breast fifteen minutes to imbibe the same amount. Hence, a babe on a bottle nurses five times as fast, and ingests five times less saliva with its food than the same babe at the breast. The milk is not ingested properly. The large amount of milk carried into the stomach with each swallow, and the rapid succession of swallows, makes the resulting curds larger and more compact than they otherwise would be, and the proper influence of mouth secretions on digestion is lost.

This faulty ingestion of milk through nursing bottles is due, in part, to the nipples. They are so long and extend so far into the mouth that milk is carried nearly beyond the mouth, and cascaded into the stomach without the normal amount of mouth secretions, and that means extra work for the stomach, and imperfect digestion.

No wonder babies on a bottle contend against adverse conditions. The faults in constuction and operation of nursing bottles, added to the errors and difficulties of cleanliness and feeding, prevent a bottle-fed baby from gaining from two-thirds to one ounce in weight daily, which is the standard gain in weight made, under the best conditions, by a babe at the breast. Bottle-fed babies, as a rule, do not gain in weight during the summer months.

There are no greater marvels than the maternal breast; and the nursing of a babe at the breast is a beautiful exhibition of natural nutrition which is not fully understood. But this much we do know, that a babe at the breast must work for what it gets, that the milk oozes slowly from several (ten to fourteen) very small openings, instead of pouring out of a single large one, and that the shortness of the nipple causes the milk to be discharged in the forward portion of the mouth, which favors mixture of saliva with it and lessens the rapidity of ingestion; and some of these features of the natural breast have been imitated in the original nursing device now before you. Mark the comparison. The breast nipple of my nursing device is elastic and capable of compression and movement similar to a woman's breast, and resembles it in form. It is also like the human breast in that the breast restricts a babe to a natural hold on the nipple, which is short, so that milk is ingested slowly, with admixture of mouth secretions, and the breast prevents the nipple from collapsing on suction, and, as the breast supports the nipple, no hard material can come in contact with an infant's lips or face, and the warmth of the fluid contents of the receptacle is imparted to the breast nipple in the act of nursing, and thus the conditions of art draw near to the conditions of Nature; and, for the first time in the history of the race, a babe deprived of its mother's breast may find in art a breast like unto it. It is the breast of Hygeia, for I have named the invention after the goddess of health.

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## THE ANTIDOTE TO CARBOLIC ACID.*

By Edmund Carleton, M.D., New York.

PROBABLY there are more accidental deaths from carbolic acid, than from all other poisonous drugs combined. The writer makes this estimate from newspaper reading, never having attempted any compilation of exact statistics. At any rate, the tragic story has been of late repeated with startling frequency. When the number of deliberate suicides from carbolic acid has been added to the foregoing, the total is so large that it demands attention.

What causes this state of affairs, and how shall it be remedied?

First, the drug is handy. Chloroform, prussic acid and morphine cannot be obtained without a physician's prescription; they are not commonly to be found in the house; everybody knows them to be highly dangerous. Not so with carbolic acid. It is sold freely to all who ask for it, labelled "poison" to be sure, but without further restriction. The people are familiar with it, in its simple form and in its combinations. They have been taught to consider it a valuable antiseptic of wide applicability. They apply it, in dilution, to various lesions of the body, and flush the waste pipes of the house with the crude material. It stands on the shelf. They are not particularly afraid of it. No wonder that the ignorant and careless suffer accidentally from it with great frequency, and that the angry and malicious avail themselves of the opportunities for evil it affords.

Obviously it should be as difficult to obtain carbolic acid as prussic acid. In lethal quantities, the former shows results almost as soon as the latter. The anæsthetic property of carbolic acid adds to its danger. Then let it not be commonly used for antisepsis. Stop familiarizing people with it. Teach them that it is too dangerous to have around.

What shall be done in case of accident from it? For a long time the profession stood helpless. Even now a majority of physicians are ignorant

*Read at Semi-Annual Meeting of the Homœopathic Medical Society of the State of New York, October 1, 1895.

of the antidote. On two occasions the writer has brought this to the notice of his professional brethren, and thus spread knowledge which should be taught in the colleges and become common property. Surely this Society, with its widely circulating reports, will accomplish the desired result.

The antidote to carbolic acid is simple, and to be had in every well ordered household. Knowledge of its specific worth came by accident. One day while making some experiments with the pure acid, an unlucky movement sent two ounces of it upon my hand. In about two seconds I had it under a stream of water and washed it well, but to no purpose; it became white and numb. There seemed to be no escape from the usual result—desquamation and slow recovery of the sense of touch. But the odor was persistent and unpleasant. In the belief that it might be changed thereby, a servant was sent to the kitchen for a cup of cider vinegar. While bathing and rubbing the affected parts with vinegar, what was my amazement to behold a complete restoration of color and function! In five minutes nothing remained in evidence except the modified odor.

That was the beginning. Numerous clinical verifications were obtained later, but considerable time elapsed before evidence was obtained as to the antidotal action of vinegar when the mucous membrane was affected. It came from our colleague, C. S. Kinney, M. D., and this is his communication:

HOSPITAL FOR THE INSANE, MIDDLETOWN, N. Y., DECEMBER, 1893.

"At seven o'clock in the morning of August 4, 1884, a nurse called me to see a man who had swallowed some carbolic acid. The patient was found with his lips, mouth and tongue coated white where the acid had touched them, and the strong characteristic odor of the acid was present. He was at once given a half cup of vinegar diluted with an equal amount of water, and this followed in a few moments by a second dose of vinegar and water. As the time hung heavily on my hands while waiting for the stomach pump, the patient was given some milk, which he willingly drank. The odor and the discoloration from the acid had disappeared from the patient's lips, mouth and tongue on taking the vinegar and water, and on using the stomach pump no odor from the liquid that was pumped from his stomach could be detected. After the stomach had been carefully washed out the patient was fed with hot milk for several days, and no further symptoms developed.

"It was not until May, 1887, that I saw in the *Homœopathic Recorder*, an article which had been presented before the International Hahnemannian Association, by Dr. Edmund Carleton, of New York, on the use of vinegar as an antidote. I have always thought I was indebted to him for the knowledge of this action of vinegar, as my acquaintance with Dr. Carleton antedated my use of vinegar as an antidote of carbolic acid by a number of years, and I may have heard it from him. Since seeing his explanation for the use of vinegar as an antidote for the acid, I have had an opportunity to test its efficiency in a number of instances, and have always found it to be reliable in every particular; and in no instance where the vinegar has been used within a few moments has there been any eschar formed."

That completes the chain. Cider vinegar is the antidote to carbolic acid. It is a fair inference that acetic acid of the shops will produce a similar action. Experiment will show.

Not wishing to divert attention from the subject presented, I nevertheless would like, in addition, to mention a hint received from observation of the pure effects of carbolic acid. It is a hint in the direction of materia medica and therapeutics, and is this: The bleaching and anæsthesia are somewhat similar to those of leprosy.

## LOOKING FORWARD.

BY DAVID ALLYN GORTON, M.D.,
BROOKLYN, N. Y.

IT was on a summer afternoon. The weather was warm and relaxing. The regular duties of the day were done, the last patient had left, and I had concluded an audience with a gentleman who had a pre-digested food which he wanted to introduce to a confiding public through the channel of the profession. He had argued long and laboriously to overcome my skepticism as to the utility of pre-digested foods, and of the peculiar virtues of his own preparation particularly.

The young man had learned his lesson well, and was able to meet my criticisms—to his own satisfaction at least. Be that as it may, weary of the whole matter and oppressed by the soporific influence of the weather, he had no sooner bowed himself out than I fell into a gentle slumber; or, if not slumber, into a mental state in which the lower physique being exhausted, the higher physique, the psychical powers, seem to be liberated from mortal connection and to rise into a sphere of the fanciful and imaginative, but at the same time to retain the powers of logic. It is not always a dream that one may experience in this state, but sometimes a clairvoyance. One in this state appears to be asleep, but it is only the lower physique that is asleep. The psychial powers are awake and more active than in the normal, waking state.

However that may be, the sense of mortal vision grew dimmer and dimmer, and I myself became oblivious of mortal sense. I seemed to be in a new sphere, surrounded by new and strange scenes, dissolving scenes, one fading imperceptibly into another. I wandered from place to place with the ease of one without gravity, enjoying the beauties of Nature; the green woods and verdant fields, the exuberant foliage, the grand mountains, the vast populous plains, the winding streams, the water of which sparkled in the bright sunlight, the beautiful gardens and palatial residences, fine roads and avenues, the variety and extent of which seemed endless. "What

can all this mean?" I said to myself. "Is this the new Atlantis of Plato, the ideal world of poets and seers?" said I, half aloud. "Oh, no," said a voice. "This is the New York of the twentieth century." I turned, and by my side stood the apparition of my pharmaceutical friend, a prominent manufacturer of pre-digested food. "Come with me and I will show you some peculiarities of civilization in New York in the year 2000. You belong to the old New York. Let me show you something of the new."

It was an exceedingly interesting walk. Everything was to me strange and peculiar—so unlike anything I had ever seen or dreamed of. The ease of walking, the facility with which one got over long spaces, the absence of animals and ordinary vehicles, to which I had been accustomed, the strange sights and sounds, and more than all, the peculiarity of the people, interested me greatly. The latter seemed more like animated cadavers—more like phantoms of men and women than like those of real flesh and blood. Their heads were large and malformed, foreheads prominent, with deep-set eyes. Receding mouths, high cheek bones and shrunken cheeks constituted their characteristic physiognomy. But what struck me the most peculiar of all was the absence of adipose—of cellular tissue—there seemed to be none in this people. The skin lay in wrinkles, showing the outline of the muscles plainly beneath. "What horrid looking creatures," said I to my companion. "Where are the fine looking men and the beautiful women, such as were to be seen in old New York?" I asked.

"Utility has become the ideal of the beautiful," he replied.

The streets of the city presented some peculiar features. Cyclers were flitting about like fireflies. Men and women of all ages, and children of tender age, used the bicycle. They seemed to be propelled by electrical machinery, and the speed with which they flitted about was something marvellous.

Another peculiarity of the city was the number of pharmacies. They were as numerous as all the grocery stores and saloons put together of old New York.

"This seems to be the Eldorado of the pharmacists," I remarked.

"Well, not altogether that," replied my companion. "It is true that there are a great many pharmacists, and they do a good business. But competition is brisk, and prices are low and profits small."

I noticed that the great show windows of these shops were filled with a display of pre-digested food. The shelves, too, of the shops were loaded with it. This article had largely taken the place of the proprietary medicines which had cursed civilization of the previous century. This is an improvement, thought I.

I saw, too, placards posted everywhere, setting forth the value of pepsin, pancreatine, dyspepsin, peptenzyme, lactopeptine, malt extracts, peptones of beef, malted milk, animal extracts, etc., etc.

Another feature that struck me as strange was the absence of butcher stalls, bakers and provision stores. On almost every block were to be seen booths displaying this sign: "All kinds of pre-digested food on draught."

Leaving the business mart of the city, and entering one of the principal residential streets, we paused before an elegant structure.

"This house was erected by a friend of mine," said my phantom guide. "The family have not yet moved in. Let us enter and examine it. You may see something in striking contrast with the wealthy homes of old New York."

The house was magnificently fitted up. The appointments were more luxurious than anything I had ever seen. In it electricity had been utilized beyond my conception. The spacious drawing rooms were elegant. Apartments for the ill and convalescent; for resting and sleeping, water and sun baths were picturesque and most luxurious features; so also were rooms for music, games and other amusements. But there were no appointments or provisions for cooking and dining.

"Your friend dines at the club or hotel," I observed.

He regarded me with surprise.

"Or, perhaps he has adopted the co-operative kitchen system in the city," I hastened to add.

"Cooking, kitchens, dining rooms," he repeated to himself, with strange perplexity!

"Those institutions existed in old New York, I believe," said he. "We have changed all that in this our modern life. We prepare our food in the laboratory, by chemical and electrical agencies. We have no need of cooks, cooking, nor kitchens. And as for dining rooms, why, they long since became obsolete. Man no longer makes a business of eating. He now simply eats to live—never lives to eat—as he did in old New York and Chicago in the early days of an Armour and a Cudha. He now eats when he is hungry, just as he would take a drink of water when thirsty. His food can be had on almost every street corner, all prepared for use, pre-digested and ready for assimilation; or he can obtain a supply in bottles and keep it in his apartment. He need never go hungry; nor does he now suffer the torments of toothache and the extortions of the dentists, or the pangs of indigestion as of former days, when he had to digest for himself, which filled his life with gloom, or drove him to commit suicide. Do you not observe the absence of long faces in our streets?" he asked.

"I observe shrunken faces and short chins," I replied.

Leaving the house, my friend took the liberty of appropriating two of his friend's bicycles for our use. On them we glided along with the speed of the wind. Stopping before an imposing structure, on the facade of which were the words "Pharmaceutical and Anatomical Institute," we alighted and entered.

Here, as elsewhere, everything was so arranged that the greatest possible amount of work could be done with the least possible exertion or expenditure of energy.

My mind was filled with amazement as we visited floor after floor and observed the working of food laboratories and the conversion of various chemical, animal and vegetable products into aliments. From this department we ascended to the anatomical department. What quantities of material were there ready for the dissector's knife! Numberless bodies lay on marble slabs. They showed no signs of decomposition. They seemed as if dessicated. We passed to the lecture hall and listened awhile to the demonstrator of anatomy, but it was difficult to understand him.

"The professor is speaking the Volapuk language, is he not?" I asked.

"Oh, no. He is speaking the universal language—English."

"English!" I repeated in amazement. "Why, I cannot understand a word he says."

My shadowy friend smiled. "You would soon become accustomed to his peculiar pronunciation," he answered. "Owing to his not having teeth he cannot pronounce the consonants as you do."

"A toothless race!" I exclaimed.

"Yes. We have no longer need for teeth, as our food does not need mastication. You, as a physician, must know that Nature does not tolerate useless organs. Exercise is as necessary to the existence of teeth as it is to that of brain and muscle. Adapting herself to changed conditions of alimentation, Nature has ceased to grow teeth in people. If you should examine the mouths of these people you might find a rudiment of a tooth occasionally, but it would be a vulgar curiosity, allying its possessor with a lower order of beings."

"But," I asked, "how is it with the other organs of digestion which have been ignored or substituted in the new form of nutrients?"

"The same law holds good with them, too," he replied. "Would you like to see the effects of predigested nutriment on the digestive organs?" he asked. Without waiting my answer he drew my attention to the viscera of a man which the demonstrator of anatomy had under observation.

What I beheld may be more easily imagined than described in brief space. The rationale of all I had seen, the airy, skeleton-like creatures, the absence of red cheeks and ruddy forms, of people with flesh and blood, beaming hopefulness and exuberant vitality, now became clear to me. The digestive organs of this cadaver were well-nigh obliterated. The liver was a mere lobular ball, which under the knife seemed like India rubber. The stomach was a dried up viscus—leather-like. The pancreas was a mere rudimentary organ. The intestines—well, they looked like a coil of small rope, and the omenta had no existence at all! "To this sad condition man has come at last through the conspiracy of the pharmacists," I murmured to myself. "This is the natural, rational result of artificial digestion, or of supplanting or usurping the functions of the organs of the vital economy, and of doing for them in the laboratory what they must do for themselves, if they are to maintain their integrity or even retain their existence."

My phantom guide, evidently perceiving the course of my reflections and the conclusions I had reached, suddenly disappeared, and I as suddenly resumed the normal state, surprised to find that I had enjoyed but an hour's reverie in the domain of pure reason.

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## THE PREVENTION OF ASIATIC CHOLERA.*

BY ELMER LEE, A.M., M.D., PH.B., CHICAGO.

ASIATIC cholera is one of the pestilential diseases that remain to menace the happiness and prosperity of the human race. In civilized countries epidemics are more and more rarely occurring, but cholera is still a dreaded and fatal disease, in periodical epidemics of wide extent in civilized Europe. To-day the disease prevails almost continuously in some portion of Southern Europe and Western Asia. The people in these countries are of two notable classes; those of the highest, but the majority of the lowest intelligence. Superstitions offer obstacles that so far have prevented the development of prophylactic measures against ravages of epidemic cholera. When a people such as are the occupants of Southern Russia threaten to murder the priest of the parish because he endeavors to introduce, for their use in times of cholera, so simple an agent as carbolic acid, it is not strange that preventive measures make slow headway. The Russian populace, during the last epidemic of the year 1892, actually murdered a physician in cold blood simply because of his profession. They believed that he, with other members of the profession, was indirectly the cause of their suffering and death. Mobs attacked the hospital barracks, dragged the patients into the open places, laid them on their backs in the hot sun, destroyed the hospital, threatened the lives of doctors and nurses, and in one instance a doctor was martyred. In another instance, in order to save his life at the hands of these sadly superstitious people, it was necessary to place a physician in a coffin and carry him as if dead to the outskirts of the town. Even in more enlightened portions of civilized countries grave difficulties present themselves to important measures relative to protection of human life in times of epidemics.

It is a long time since there has been an epidemic of the cholera in the United States, but it is perhaps an open question whether our own people in some instances would behave in the most enlightened manner. While it is agreed by the profession universally that it is desirable to prevent epidemics, it seems everywhere to be scarcely possible to meet the laudable desire. Up to the present time there have been and there are a number of propositions concerning the prevention of Asiatic cholera. The success of measures of prevention has not realized the expectations of the advocate who has proposed them. A most notable and widespread interest and enthusiasm were produced ten years ago by Ferran, of Valen-

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cia, Spain. The doctor heralded to the world that by the use of his attenuated cholera germs the disease was both quickly and surely curable, as well as preventable. His proposition received almost universal consideration, but to-day the proposition receives absolutely universal neglect. This is the sad history of the great hope that was extended throughout the civilized world, that at last a great man had discovered a method equal to the requirement. Expectations ran high, the medical press, as well as the secular, was filled with seemingly strong and convincing facts, that went far to establish the value of Dr. Ferran's proposition, but alas! as have so many propositions during our own brief generation, it waned, and to-day is only remembered on account of the notoriety of the failure. Since his day other equally intrepid investigators have had propositions to advance. Some of the propositions have been worthy of serious consideration, some of them have been ridiculous. In every instance the proposal to protect human life from the contagion of cholera has consisted of some foreign element to be introduced into the blood circulation. The principle underlying the introduction of foreign substances into the circulation is that of antagonism. Some of these substances proposed to be introduced into the body have been animal substances, many of them mineral. The disposition of the moment, especially the disposition of European investigators, is along the line of animal viruses. These viruses are of two kinds: the newer kind is the sterilized toxins of the disease to be prevented; the older form consisted of attenuated bacilli. Both forms have sadly failed to prevent the disease feared.

The latest proposer of virus of animal nature that would prevent Asiatic cholera is Prof. Haffkine, of the Pasteur laboratory, a Russian by birth and education. The doctor is an intrepid experimenter, a faithful observer and a profound bacteriologist. His great and untiring efforts seriously deserve a better fate than the results of his latest experiments warrant. Encouraged by the hope of success, he has visited the home of Asiatic cholera in India, and a great many of the natives and members of the native army were inoculated against cholera. The report of the results of his inoculations show that 70 per cent. of the inoculated subsequently contracted cholera, whereas the percentage of the natives not inoculated who contracted cholera did not exceed 67 per cent. This is truly disheartening, but it is what was to be expected. Inoculation by animal viruses predisposes to Asiatic cholera, the opposite result to that which is desired. Inoculation against cholera has signally failed in the hands of each successive prophet. The virus subcutaneously introduced produced retrograde metamorphosis similar to the effect of the disease itself. The experiments in Calcutta by inoculation during the last three years have shown better results, but the conclusion is valueless, for the reason that that community has not been visited by Asiatic cholera during the entire period of the experiment. If the attenuated germ and the sterilized product of the germs, or the sterilized product of the disease itself, after the conscientious trial of a generation, fails, what hope remains along this particular line? There is nothing left to be tried, and it appears to me the case is hopeless in this direction. My own conviction, honestly revealed, denies any prospect of a realization of such hopes.

A still later earnest, intelligent, educated enthusiast in our own country comes forward with a new theory. Dr. Reginald Leach, a worthy and honorable graduate of Dartmouth, proposes to prevent Asiatic cholera by a process of introducing arsenious acid into the circulation. His conclusion is the result of theoretical deduction. The proof of the value of the deduction has not yet been established, but the high standing of Dr. Leach entitles him to our most respectful consideration. He assumes, and in his assumption he has my concurrence, that to prevent a disease such as cholera, an agent is required which is in itself able to cure that disease. This is good reasoning; this is, from my standpoint, literally and actually true. Now, as to the selection of the remedy. The doctor holds with me that the propositions of Pasteur, of Behring, Haffkine, Hammond, Ferran and others of that class are faulty, because they use an animal toxin for their preventive measure. An animal toxin, the doctor says, is necessarily uncertain in its dynamic force, owing to incidental and unavoidable causes. In addition to that the morbid products of vicious character are liable to accompany the curative animal virus, owing to the impurity of the source from which it is taken. Consequently Dr. Leach proposes to use a definite unvariable mineral of known strength, a mineral which can be weighed and the dose made exact. He reasons that there is some analogy between Asiatic cholera and malarial disorders, and that this mineral substance likewise is able to exert its peculiar protecting influence. Virchow has stated that there is some analogy between the effect of poisoning by arsenic and the disease, Asiatic cholera. Upon this basis of analogy the theory is constructed in part that that remedy which produces an analogic disease to cholera may be the remedy which will cure a prototype of that analogy. Another conclusion entertained is that while the morbid products of disease used as viruses for inoculation produce retrograde disturbances of the human body, on the contrary, arsenic is said by Bartholow, as the doctor's authority, to produce tonic and reconstructive effects. Theoretically, they may or may not be true. Practically, the conclusion has not been determined. It is a serious question, in my mind, as to whether it can ever be proved to be true. The claims for prophylactic effect of arsenic are being investigated by certain colleagues in Lucknow and some other parts of India. Whatever may be the result, it is too much to hope that the prevention of Asiatic cholera can be secured by introducing any corrosive mineral substance into the circulation. Arsenic is an intense corrosive, and, whatever its influence may be, its action is that of a foreign corrosive substance. It has by right and by nature no natural place in the human organism. The reasoning from the point of theory

by Dr. Leach is clear and deeply interesting, and worthy of consideration. The whole subject has been plainly presented to me by the doctor in the form of a personal letter, but it is too important a document to be retained by me as a private paper. It is my wish that it be included in the transactions of this section for publication in the regular way.

The prevention of cholera must necessarily be along two lines: First, the measures instituted and executed by the State; and, second, those means and measures to be carried out by the individual. The enforcement by the State of modern sanitation, modern hygiene, the principal feature of both the preceding being a free supply of pure water for public and private use, constitute the wisest and best provision as a public policy. The application of rules of strict and severe and unyielding quarantine measures is neither humane nor is it necessary.

Cholera is a preventable disease; but to prevent cholera requires co-operation between the directors and the directed. Education and the growth of intelligence alone will secure protective co-operation. What can we do in a place where its citizens, when commanded by the authorities to restrict their use exclusively to sterilized water, reply, as they did along the banks of the Volga in Russia, that they will not do so because God Almighty did not intend them to drink boiled water, for if he had he would have boiled the water himself? The day when sufficient intelligence will inspire the motive for co-operation between the authorities and the masses is somewhat nearer, but still a long way off.

Personal prophylaxis against cholera would avail much if the result of personal intelligent instruction. Victims of cholera are chiefly persons who are themselves victims of vicious appetites or vicious habits. The excessive use of alcoholic beverages is without an equal as a chief factor in preparing the organism for an invasion of cholera. Excessive use of tobacco likewise weakens the system and invites cholera. Unscientific cooking and the too frequent use of animal foods are productive of a condition of body which encourages cholera. The insufficient consumption of water, and especially of pure water, is of all factors the most conductive to the acquirement of this disase. One preventive which would be a universal prophylactic against Asiatic cholera is the condition not as frequently found as it should be, which is known by the name of good health. Pettenkofer, of Munich, showed by his experiments upon himself that with normal secretion of gastric juice a tumblerful of cholera bacilli could be taken with mirth and impunity. Gastric juice is a corrosive substance secreted in the normal stomach, that attacks and cuts to pieces quickly and surely every organic particle of matter that comes in contact with it. It is fully taught and fully believed that cholera is produced by organic germs, which enter the stomach through the mouth in the contaminated water which is drank or in the food which is consumed. The sentinel in good health is vigilant, and absolutely prevents every form of organic substance from passing the threshold into the human citadel. But if the guard who stands watch at the door is stupefied and rendered impotent by his own vicious habits, he will permit the foe to enter and the house to be invaded. Healthy tissue, together with a healthy mind, is the best prophylaxis, universal as to time and to place against every invasion of the system by Asiatic cholera.

It was my experience during a stay of six weeks in the Oboukoff Hospital in St. Petersburg to see many cases of Asiatic cholera. There were 600 persons afflicted with cholera at the time of arrival. The cases of cholera were principally among the lower or lowest classes. These poor people live badly, eat poorly, and drink excessively; but instead of drinking pure water they substitute a Russian liquor, and frequently while under its influence they drink water during the heat of the day from the filthy canals which divide the city into three parts. These canals are so foul that they resemble to some extent the Chicago River. Fish can scarcely be kept alive for even a few days in them. Very many of the men who came to the hospital sick from cholera contracted the disease through their ignorant use of the contaminated water from the canals of the city. The preventive measure that is universally employed, and which commended itself because of its good results, was the provision for a supply of boiled water for all the inhabitants. It is wise in observing to take note of a measure so simple, yet so generally recommended, as the use of pure water during epidemics. This sensible measure is the only likely preventive of Asiatic cholera. During the prevalence of the epidemic in Hamburg, Altoona, a division of the city, was supplied from a different system of waterworks from that of Hamburg, and while cholera raged in Hamburg to the extent of 21,000 cases in five weeks, there were no cases of cholera in Altoona, which was only separated from Hamburg by the difference of having a separate waterworks which supplied filtered water, as against unfiltered water to the residents of the infected city. Pure water will save Hamburg from future epidemics of cholera.—*Journal of American Medical Association.*

## CLINIQUE.

### CONGENITAL STRICTURE OF THE URETHRA.

BY BUCK G. CARLETON, M. D., NEW YORK.

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THE case I am about to describe is that of a gentleman who was referred to me for special genito-urinary treatment in March, 1895, prostatic disease being suspected by the attending physician.

He was sixty years of age, had enjoyed fair health; had not been afflicted with any special

disease, and was free from any venereal history or excesses. Married at the age of twenty, he is now the father of a family of grown sons and daughters. For a number of years past his health had been gradually failing, and he had been under the care of numerous general practitioners and specialists, and while there had been some urinary disturbances, they one and all attributed them to his general condition, and no special examination of the urinary tract had been made, although one noted genito-urinary surgeon had attended him for some time.

Since childhood he was obliged to urinate on an average every half hour, and often during the night. With this frequent desire to urinate, which was sometimes painful, the penis would become swollen to a considerable degree on the under surface, and after the act there was a tendency for the urine to dribble, as if the canal had not fully emptied itself.

Sometimes there was a sensation as though the bladder was only partly evacuated, even immediately after urinating. There was also a feeling of fullness in the prostatic region.

There had been a gradual loss of strength and a progressive increase of muscular weakness, which was attributed to advancing age. Pain of a dull character was occasionally noticed in the back, and especially a pain extending from the chest down the left arm into the thumb and index finger of that side. He was subject to attacks of difficult breathing, asthmatic in character, brought on by any unusual exertion or from talking.

Respiration was somewhat accelerated and labored; there was no dullness on percussion, but all over the lungs sibilant and mucous rales were heard. The heart's action was a little accelerated, but no marked hypertrophy or dilatation were discovered. His face was pale and ashy, and looked somewhat worn and tired. Occasionally he had some headache.

A specimen of the urine was requested for examination, as it is always best to make a thorough urinalysis before making urethroscopic or other instrumental examination of the genito-urinary tract, to avoid as much as possible any danger of urethral fever, and if the condition of the urine was favorable to such a complication, to remove it as much as time and circumstances would allow before the instrumentation.

The urine was acid in reaction, sp. gr. 1012, quantity not noted. Millard test showed evidence of albumen, but heat and nitric acid tests were negative.

Pus and sugar were absent. The microscope revealed a few hyaline casts and epithelial cells. When asked to urinate it was with great difficulty that the act was commenced, and this, he stated, was of frequent occurrence; the urine was passed in a very fine stream, and the urethra or corpus spongiosum was noticed to balloon during the act. The meatus urinarious was markedly strictured, only admitting a No. 9 French bulbous bougie. Otis says: A large majority of all urethral strictures are situated in the anterior 1½ inches of the pinctulous urethra. This condition, I believe from his history, was congenital; in other words, when at the third or fourth month of embryonic life the genital fissure, which up to this time exists as an open furrow or tract, in closing to form the corpus spongiosum, coalesced too far at this particular point, and so resulted in a congenital stricture. This obstruction, the rest of the genito-urinary tract being normal at birth, caused an unnatural balance between the expulsive force of the bladder and the urinary exit, this causing an unnatural source of irritation from his birth until the present time, and if allowed to remain would in time slowly but surely cause death from chronic interstitial or catarrhal nephritis.

As deep urethral examination or urethroscopy could not be made until the stricture was removed, a meatotomy was advised, but as he wished the operation performed at his residence it was deferred until the next day. The prostate was found to be about two inches in diameter, hard and somewhat sensitive to touch. The middle lobe was not much enlarged, the hypertrophy being confined to the lateral lobes. The bladder was not sensitive to manipulation, and contained no residual urine. The testes and cords were a little relaxed, otherwise normal. Penis somewhat shrunken in appearance, and of a slight bluish cast.

The following day the strictured tissues were severed with the Otis meatotomy knife, at the anterior three-quarters of an inch of the urethra, well back and even with the floor of the fossa navicularis. The whole canal now allowed of the easy introduction of a No. 32 French bulbous bougie without obstruction or pain, bleeding being only slight. No local or general anæsthetic was used, as the pain is momentary, and my experience has been that the results are more satisfactory without it. After the use of cocaine in urethral operations there is not only a tendency to secondary bleeding, but there seems to be a greater tendency to coaptation of the severed stricture. He was requested to call next day at the office to have a Weisse sound passed, to assist in keeping the severed tissues apart. This was continued daily for a week, and on the fourteenth and twenty-first days.

The day after the operation his condition was a revelation to him, and would have been to any one unaccustomed to the results of this operation. Since that time the desire to urinate had occurred only about once in three hours, and with the exception of a little smarting as the urine passed over the cut surface, the act was easy, free from pain and a source of satisfaction to himself. For the first time in his recollection there was no call to urinate during the night. The asthmatic breathing and the pain in the arm, thumb and finger were greatly improved, and he said that he felt like a new man. On the twenty-first day the urethra was examined with the Otis electric endoscope, and found to be in a normal condition. The prostate was no longer sensitive to touch, although the hypertrophy continued. Since June no albumen and no casts have been detected in the urine, which is now passed at normal intervals without difficulty, and with perfect ease and free-

dom. The breathing has been normal since the operation, and the pain in the arm and fingers has entirely disappeared.

His son was in the office a few days ago to be treated for a similar condition, and said that his father is now a well and happy man.

## CLINICAL LECTURE DELIVERED BEFORE THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY DR. FRANCIS DELAFIELD, OCT. 17, 1895.*

WOMAN, age forty-one years. This woman was admitted to Roosevelt Hospital on the 4th of October. Three years ago she was taken with a pain in the left side of her chest, accompanied with quite severe cough and loss of voice. From this attack she partially recovered, but the symptoms returned about a year ago, and then she complained of loss of strength, sharp pains running up the right side of the neck, dyspnœa and cough. You can see that the dyspnœa is very marked, and it is evidently caused by something pressing on the larynx and trachea. As I bare the chest, you notice a distinct fullness of the veins on both sides of the neck, showing that the flow of blood to the right heart is interfered with. Percussion shows an area of dullness over the front of the chest, in the upper part, covering a space about six inches square. There are apparently no heart murmurs, although the noisy breathing makes it difficult to decide positively. The radial pulses are equal. The dullness indicates the something that is causing the dyspnœa and the pressure on the descending vena cava, as shown by the enlarged veins. And this something is undoubtedly one of two things—either an aneurism of the arch of the aorta or an intra-thoracic tumor. An aneurism is of much more frequent occurrence than an intra-thoracic tumor, but the absence of pulsation, and the fact that there is no bulging of the chest forward, leads us to decide in favor of the tumor.

Thoracic tumors tend to enlarge and to infiltrate into the surrounding tissues. In either case the prognosis is unqualifiedly bad. Her general health has suffered, as is manifest by her appearance. She has had iodide of potassium at the hospital, but has shown no improvement under its use.

Arsenic, I think, is the drug most likely to benefit such a case. But it must be given in large doses, otherwise we shall get no good results. I would begin with *small doses*, gradually increasing till symptoms of poisoning show themselves, when we should omit the treatment, resuming it, however, as soon as the indications of poison disappear. I can suggest nothing more likely to be of service than the arsenic, but I fear that little can be hoped for under any treatment.

Our second case is a man, forty-two years of age, a printer by trade. He says he enjoyed good health till about three or four years ago. Then he began to be troubled with shortness of breath, headache, swelling of the legs, and frequent calls to pass urine. He has been steadily failing, and he says that now his appetite is very poor, and that he occasionally vomits his food. As you look at the man you see that he is pale and poorly nourished. An examination of the urine about a week ago showed 10 per cent. of albumen, and a specific gravity of 1012. A more recent examination shows a slightly diminished percentage of albumen, with the same specific gravity. His pulse is rapid, but there is no increase of arterial tension. On further examination we find a slight œdema of the lungs, but no fluid in the pleural cavity. The liver is somewhat reduced in size. The heart is dilated, but there are no murmurs. The patient undoubted has Bright's disease, but our first endeavor must be to regulate the action of the heart (which at present is labored), and improve the circulation. In the first place he must be kept quiet, not necessarily in bed, for he suffers from shortness of breath when lying down, a condition quite characteristic of this disease.

To improve the heart's action, we might give digitalis, two minims of the fluid extract, with ten grains of iodide of potassium, three times a day, but I think we shall get better results from small doses of morphine. We will prescribe tablets, containing each $\frac{1}{60}$ grain of morphine, and two grains of caffeine, and give one of these every two hours, night and day. By acting on the heart we shall increase the secretion of urine, and thus diminish the dropsy, but as I consider it important to effect this as speedily as possible, I shall suggest that we induce profuse perspiration, by means of the hot pack, applied once a day. For diet I would advise that he use as much milk as possible, with meat broths, and a meal of solid food at least once a day.

### EXOPHTHALMIC GOITRE.

The woman before us now, gentlemen, is thirty-six years of age. Her health began to fail about six years ago, and since then her condition has been getting gradually worse. Even now, however, the symptoms are not very pronounced. The protrusion of the eyes is certainly manifest, and the enlargement of the thyroid gland, which you will see as I remove the covering from her throat, is by no means very great, but there is a *firmness* about the enlargement of the gland, and a *persistance* (if I may so describe it) about the protrusion of the eyes, showing that the disease has a firm hold. The heart is hypertrophied, and its action is violent. She has been in a hospital part of the time, and while there electricity was applied to the gland, for the purpose of reducing it, but with little effect. I think there is little to be done in the way of medicine for such a case, but would advise that she undergo an operation for the removal of a portion of the thyroid. This, in my opinion, offers the best, perhaps the only chance, of improvement. While she is making up her mind on the subject I would try to build up her strength by a generous diet and cod liver oil, or, in the event of that disagreeing with her, plenty of milk and cream. To reduce the heart's action I would give belledonna in small doses.

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MEDICINE, SURGERY, AND COLLATERAL SCIENCES.

EDITORS:

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## SPECIALTIES.

IT is a question if the division and subdivision of our profession into as many specialties as there are organs of the body and functions of life does not lessen the influence of the physician who includes in his specialty every organ in the body, and in his diagnosis and treatment of disease brings in active play an intimate knowledge of the functions and healthy and diseased action of all these organs, and their influences one upon the other. Is it not true that the highest attainment in every branch of knowledge of the specialist may not equally be attainable by the whole profession, if they are given equal opportunities? May not, to a certain extent, the magical facility of the specialist in diagnosis be counterbalanced in treatment by a lack of knowledge of functional disturbance arising from irritation of other organs. We recall the mistake of one of the most distinguished gynæcologists in the city, in keeping a patient in his private hospital at an enormous expense for six weeks in preparation for an operation on the cervix, to relieve a trouble of which the womb was entirely innocent. The guilt rested solely upon the bladder, and when its cystitis was relieved the whole trouble was at an end. And another case by another distinguished gynæcologist, where the vagina was syringed and cauterized and the womb held up by pessaries, and the patient given twenty grains of quinine a day for a supposed malarial fever with no relief, which finally came by treating the bladder, the cause of the trouble, which could have easily been revealed by testing the water, which at the time was full of pus. In studying the cause of disease and its prevention we must look at the whole man as a thinking animal, thinking in every organ of his body, and comprehend that the great trouble which from time to time is developed in his social and physical condition, is unbalanced thinking in the concentration of thought upon special centers, as the head, the stomach, the emotional centers, to the neglect of other centers, thus breaking up the harmony of the whole man and depriving other organs of their full development, their just part in that exquisite life of growth, of harmony and expansion, in which the whole body thinks, from the crown of the head to the sole of the feet, in every nervous filament and in every cell. We are too apt to look upon the brain as the thinking machine, without giving due credit to the helps in the evolution of thought of that network of nerve fibers which reach every cell in the body, and connect impressions to the central ganglions and the cerebral cortex.

Dr. I. Luys, of the Hospital Salpeterie in Paris, gives an almost identical disposition of nerve cells in the cerebral cortex and in the gray axis of the spinal cord. He demonstrated in his work on the brain that in the very structure of the cerebral cortex, among the thousands of elements of which it is composed, there is an entire series of special nerve cells intimately connected one with another, constituting perfectly defined zones, anatomically appreciable, and serving as a common reservoir for all the diffuse sensibilities of the organism, which, as they are successively absorbed in their tissue, produce in the region of the *sensorum communs* the series of impressions which bring with them, movement and life.

Dr. Carmichael, in his learned and eloquent articles in this journal on Nervous Matter, after discussing the peculiar properties of the nervous elements in their origin, their evolution throughout the organism, their nervous manifestations and pathological deviations, arrives at the same conclusion as Dr. Luys, that it is by means of their combinations and by the harmonious coordination of all their truly specific energies that the brain *feels*, remembers and acts, and that without the presence of these living forces, the complex apparatus, the brain, would be as absolutely without life and without movement as the earth without the sun. Remember that the external world only becomes incarnate in us through the sensibility of the terminal nervous expansion, which includes in its network every cell in the body. These sensitive nerves convey the impressions of sight, of sound, of taste, of smell, of pain, to the great fountain of thought to which they supply the elements.

From this line of scientific demonstration we can understand and recognize the truth of the statement of Luys, that all modes of sensibility, whatever their origin, are physiologically transported into the sensorium. From fiber to fiber, from sensitive element to sensitive element our whole organism is sensitive; our whole sentient personality in fact is conducted, just as it exists, into the plexuses of the *sensorum communs*. If the physician keeps constantly in mind that the whole man is the thinking body, and that much, very much, of physical and social evil is the outcome of unbalanced thought, he will hold in his hand that thread of knowledge which will guide him into broader fields and wider influences.

## WILL SCIENCE LENGTHEN LIFE?

MR. A. J. BALFOUR, the English statesman, has been discussing the question of the effect of increased scientific knowledge on the lengthening of human life (*Drug. Circ.*). Medical practitioners are a necessity in a modern community, but the most valuable part of their work is that which gives a profounder iusight into the nature and into the cause of disease, and thus increases the sum of human knowledge of the healing art. Mr. Balfour believes that the time will soon come when the ablest physicians and surgeons will be able, through government endowment, to concentrate themselves on medical and surgical investigations, instead of wasting the greater part of their energies in the struggle to live. One of the foremost of living physicians, with whom he had been speaking of these happy prospects of scientific medicine, had told him he did not see any vital or sufficient reason why, when medicine was in the immediate future better understood, and when those temperate habits which medicine might counsel, but which medicine could not enforce, obtained a deeper and larger hold on the great masses of the civilized world, as undoubtedly they would, the span of human life should not be extended to the patriarchal term of 120 years.

Dr. Israel M. Davenport, of the Illinois Eastern Hospital for the Insane, reports to the October *American Journal of Insanity* the results of the treatment by himself and colleagues, of forty-two cases with the following conclusion: That while this treatment does not result in recovery, it is soothing to the irritable patient, exhilarating to those suffering under depression and gives a gratifying respite from the attacks, thus adding materially to comfort. He has found no benefit in repeating the treatment oftener than at periods of three months after the bromides have been taken. In every case the attacks become less frequent and the patient less irritable.

## OPIUM IN EPILEPSY.

THE pathological condition of the nerve cells in the brain is so little understood that treatment in epilipsy is to a great extent theoretical. Every year some new remedy is brought before the public with positive proof of its beneficial effect in certain cases, and yet failure so often attends the administration that it is seen that benefit is only obtained in certain conditions, which have not been sufficiently studied to form a diagnostic picture of much value.

The bromides have long been the most popular and effective remedies in this disease, although their effect is often only at the most palliative. Recently Professor Fleisig, of Leipzig, has published a comparatively new treatment, which has given the most gratifying results. The remedy is opium, given in the form of extract or pill, in from one-half to a grain at a dose, gradually increasing for a week, when the patient reaches the maximum of fifteen grains a day, given in doses in from one to four grains. This dosing is continued for six weeks, when it is suddenly stopped, and bromide of potash or soda administered for some time in doses of half a drachm, four times a day, and gradually decreased to two scruples a day. Of course, the administration of these large doses of opium must be carefully watched until the patient is accustomed to them. The effect of this treatment was more marked in chronic cases associated with defective development. This plan of treatment can only be considered of marked value in chronic and intractable cases, and in these cases acted not as a curative, but materially lessening the frequency of the attacks and reducing their violence. The opium, it is claimed, prepares the way for other therapeutic measures.

## VINEGAR IN VOMITING FROM CHLOROFORM.

ON ANOTHER page Dr. Edmund Carleton gives his very valuable experience on the use of vinegar in carbolic acid poisoning, in which it would seem to act almost as a specific. In looking over our exchanges we find in the *Revue de Chirurgie* the experience of M. Lewin in the use of vinegar, which is always obtainable in every family, in preventing vomiting in chloroform anæs-

thesia, which is so often troublesome and long continued. In 125 cases out of 174 the success was complete. In forty-nine cases the vomiting was slight. M. Lewin says the irritation produced by the chlorine on the larynx and trachea is the principal cause of vomiting. The action of the vinegar is to a certain extent a chemical one, for when a cloth saturated with acetic acid is held over the mouth and nostrils the combination of chlorine as it is evolved with the acetic acid forms trichloracetic acid. It is known, says M. Lewin, that chloroform dehydrates the tissues, causing to a certain extent coagulation of the blood. This condition the acetic acid relieves, restoring the blood to its natural fluidity, by the property it derives from the water it contains and its energetic power of destroying fibrine. The acid acts as an active stimulant on the respiratory tract. M. Lewin does not claim this remedy to be an absolute specific, for in certain nervous conditions, and in affections of the lungs and stomach, in which cases he would seldom give chloroform, vomiting might occur in spite of the treatment, A piece of linen about the size of a napkin, saturated with vinegar and slightly wrung out, is placed on the patient's face over the mask, which is afterward carefully withdrawn. This cloth should be kept on for two or three hours, and even longer if the breath gives evidence of the presence of chloroform; the cloth as it dries should be replaced by another over the old cloth, which should then be carefully withdrawn to prevent the air from touching the face. The wet cloth can be held away from the face by a mask, if annoying to the patient. Any remedy which will prevent the nausea so often following anæsthesia will be hailed as a blessing.

## SOLANUM IN TRISMUS NEONATORUM.

IN our materia medica, solanum is recommended in cases of spasms of the jaw, especially in teething children. It belongs to the family of solanace, which includes belladonna and hyosnams, with certain symptoms in all, closely resembling each other. Dr. John W. Marcy gives in the *Philadelphia Polyclinic* some very interesting clinical cases of trismus neonatorum in which solanum produced decided relief. Dr. Marcy says the two symptons most characteristic of the disease are a board-like hardness of the abdominal muscles and a peculiar drawn or aged look to the face, causing the child to look as though it was seventy years old.

The treatment was first a dose of castor oil, which moved the bowels freely, then, as the kidneys did not perform their part, minute doses of pilocarpin hydrochlorate. For the spasmodic condition I gave tincture of solanum carolinense, and pushed it to narcosis. I began with about seven drops every three hours, then gave it every two hours, then increased to fifteen drops every two or three hours, as was necessary to produce sleep, with instructions to stop the remedy when the child slept. The child would sleep two or three hours, then awaken, and some milk fresh from the mother would be poured in its mouth. We kept the child asleep in this manner until the spasm relaxed. When relaxation did take place, it was from above downward. First, in the jaws and neck, then in the hands and arms, then the abdominal muscles, hips, knees, etc. I believe that given a good tincture of solanum, intelligent nursing and good hygiene, many more children might be saved. In my case the nursing and surroundings probably did as much good as the medicine, but I also think that too much praise cannot be given to the solanum.

## THE GARBAGE QUESTION.

THANKS to the United States Government, the garbage question, which been the *bête noir* of our city government, is about to be settled in a satisfactory manner. After April 1, 1896, the goverment forbids the dumping of the refuse of the city into the ocean, and therefore compels the city to take measures to dispose of it in some way less prejudicial to health, and more satisfactory to the entire community. No better way has yet been devised than the Chesebrough method of cremation, outlined in the October issue of the TIMES. Now that the city is compelled to act, we are confident that the public will insist on the most practical solution of the problem, in which the public health and comfort shall have just consideration. The city should receive a revenue from the disposal of this refuse, but in deciding the question, that should be the last point of consideration.

## STUDY YOUR PATIENTS.

THE position of Dr. Bulkley in his monograph on psoraisis is equally applicable to other diseases, and if carried out intelligently will often lead to brilliant results. "In psoraisis," says Dr. Bulkley, "the patient should be studied rather than the eruption; his diet, habits of life, the state of the emunctions, the condition of nutrition, and many features which a careful physician notes and takes into consideration in connection with other complaints. One who approaches

psoraisis should by no means be content with alone recognizing the local conditions on the skin and prescribing local measures to benefit them, but that with broad medical knowledge he should study the patient and seek to rectify the cause back of the local manifestation of the skin, the treatment depending very largely upon the recognition of the blood state or condition upon which the disease depends," all of which is decidedly the teachings of Hahnemann.

### ARTIFICIAL FEEDING OF INFANTS.

GRIFFITH says: "I do not advise using milk diluted with plain water for young babies under four months old. The simplest and most common used dilutent is barley water, which is almost entirely innutritious, its action being purely mechanical in breaking up the casein."

WATER TESTS.—The August issue of the *Iowa Health Bulletin*, published by the State Board of Health, gives a simple test for sewerage contamination or pollution from privy vaults, which can be used by any one. To a glass of water add four drops of a saturated solution of permanganate of potash and let it stand two hours. If decomposing organic matter is present in a dangerous amount the rose color will change to dull yellow, and if there is a large quantity of decomposed organic matter in the water the rose color will in time completely disappear. If it turns paler but still retains a red tinge, it indicates a slighter degree of impurity. Another simple test of the quality of drinking water is to place twelve grains of caustic potash and three grains of permanganate of potassium in an ounce of distilled water. If to a glass of water one or two drops of the solution imparts a decided color the water is drinkable; but if the solution immediately loses its color and disappears, the water should be rejected for drinking purposes.

USELESS LAWS.—The Legislature is made up mostly of lawyers and so called business men; but very few physicians, caring, even if they could, to enter the circle of law makers. The mania for meeting every emergency and every condition in life by law has loaded our statute books with laws worse than useless, some of them about as ridiculous and senseless as the "Blue Laws" of a past age. Notably among these we may instance the present Excise law, the fruitful cause of an almost endless amount of deceit and perjury, hindering in its work for good the very cause for which it was claimed it was organized to aid. The law is in every respect unwise and harmful, and should give way to one more carefully constructed by men who have studied the matter less from a political standpoint than for its practical working for good. Next to this, less in mischievous results than in its utter uselessness, is the "Law relating to suicide." Of this law Dr. Spitzka, in a paper read before the Medical Jurisprudence Society, very justly said: "So far as any practical good is concerned the law is useless. There has been no decrease of suicide in consequence of it. The aim of any one who wishes to commit suicide is to kill himself, and how can any law punish him if he succeeds? We can make no rule for moral conduct in an individual, and until we are enabled to uproot the causes of suicide we cannot prevent it. Suicide is due to mental diseases, largely brought about in those ways, always dangerous—of telling half truths to the public mind, whole truths to the immature mind and vicous truths to the morbid mind.

THROUGH the generosity of Mr. W. D. Sloane and Mrs. Auchmuty a commodious home has been erected for persons in the incipient stage of consumption, at a cost of $150,000. There are no nurses and no resident physician, and the cost of living will be only six dollars a week.

DR. TUCKER, the director of the New York Health Board Laboratory, in a recent address delivered before the Brooklyn Institute, gives an alarming picture of the adulteration of many of the drugs in common use and frequently dispensed without prescriptions. From 1891 to 1894 inclusive 8,305 samples were examined, and not one-half were of good quality. Among the drugs mentioned as of inferior quality were the bromides and the iodides and especially precipitated sulphur, which was found to be impure in three-quarters of the 248 samples tested. In the use of these drugs no positive reliance could be placed upon their possible effects, unless obtained from druggists of known good repute.

HOUR-GLASS CONTRACTION OF THE WOMB.—Professor Hirst says that the so-called hour-glass contraction does not exist. It is a misnomer handed down from generation to generation through the text-books. There are no circular fibers in the womb to contract. The true condition is that, as is well known, the uterus contracts rapidly where the placenta is freed, and the condition of the hour-glass contraction, so often described, is due to the fact that the upper part of the uterus, in which the placenta

lies usually, does not contract because of the presence of the placenta. When the doctor's hand is inserted to detach the placenta he feels this contraction (which is in every way normal), and then his hand passes into the uncontracted upper segment, where the placenta lies, and he is at once sure he has a "case of hour-glass contraction." Especially is this so if he so far forgets himself as to attempt the withdrawal of the placenta. The placenta should never be withdrawn, but should be grasped firmly after all adhesions are separated, and the next pain allowed to expel the hand and placenta. If the case is urgent the expulsion may be by the method of Crede.

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TO PRESERVE URINE.—Dr. Leffmann finds chloroform the most satisfactory of the various agents suggested for preserving specimens of urine. About six or eight drops are added to each fluid ounce, and the mixture well shaken. The excess of chloroform soon collects at the bottom of the bottle. Samples so treated will keep for months, even in the hottest weather. Chloroform promptly reduces Fehling's solution. If, therefore, it be desired to test for sugar, the chloroform must be removed by boiling the liquid; or, better, the bismuth or phemylhydrazin test must be used. Chloroform does not interfere with these nor simulate sugar.

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ROSENBURY advises before administering chloroform spraying the nose with cocaine solution. By this means the reflex action of the heart is prevented and anæsthesia more readily produced.

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BALFOUR says all weak hearts should have their principal meal in the middle of the day, and with as little fluid as possible.

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ACETANALID.—Dr. Morton finds this remedy a specific in simple chancroids, the sore healing in from one to seven days. The sore is to be washed several times a day, and dusted with the powder.

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PROF. HASS says fistula can often be cured by touching the edges with nitric acid, which causes an outpouring of granulating tissues and thus plugs up the openings.

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IT IS said on excellent authority that walking backwards for ten minutes will cure any nervous headache.

## BIBLIOGRAPHICAL.

THE *Archives of Pedriatics* will hereafter be published under the management of E. B. Treat, the medical book publisher. The editorial management will be in the hands of Floyd M. Crandall, M.D., Adjunct Professor of Pedriatics, New York Polyclinic. The journal will be enlarged, with additional collaborators in its different departments.

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THE *Arena*, published by the Arena Publishing Co., will on the first of January reduce its subscription price from five to three dollars a year, thus placing one of the ablest progressive and reformatory reviews in the English speaking world in the hands of thousands who could not afford the former price. The *Arena* includes among its contributors some of the ablest writers in the world of new thoughts and philosophical investigations, and is at all times rich in its discussion of those great questions which are now so strongly agitating the public mind.

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W. B. SAUNDERS, the medical book publisher of Philadelphia, announces as ready for distribution in January, "Saunders' American Year Book of Medicine and Surgery," edited by George M. Gould, A.M., M.D., assisted by eminent American physicians and teachers. A distinguishable feature of this year book will be to place before the physician in convenient form an epitomization of journalistic literatures by persons competent to pronounce upon the value of a discovery or of a method of treatment. The original and selected illustrations with which the work will abound, will be produced in studios prepared by Mr. Saunders on the premises, for the special purposes.

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The *American Journal of Psychology*, edited by G. Stanley Hall, Clark University, Worcester, Mass., discusses with great ability those various departments of psychology which are attracting so much attention in the scientific institutions of the world at the present day. The subject matter includes the results of experimental investigations in psycho-physic laboratories, studies in abnormal psychology, including the insane, criminals, idiotic, blind, deaf or other defections or degenerations, the anthropology of myth, custom, religious belief, symbols, etc., among savages, and ethnic shocks, studies of animal psychology, neurological researches, the psychology of philosophy, ethics, æsthetics, theology, etc. It will be seen that the journal discusses questions of great interest from a philosophical standpoint.

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THE SCIENCE AND ART OF OBSTETRICS. By Theophilus Parvin, A.M., M.D., LL.D. Third edition, carefully revised, illustrated with 289 wood cuts and two colored plates. Philadelphia: Lea Brothers & Co., 1895.

The work of Dr. Parvin, recognized as one of the clearest and most practical expositions of his specialty, and which has had a popularity unequalled by any other, has passed to its third edition. Some changes have been made in the order in which subjects are discussed, suggested in his work in the class room, and nearly one-third of the book has been re-written. Additional illustrations have been introduced to make it a faithful reflex of obstetric science and art at the present time. The illustrations are admirably executed, and add much by their minute clearness to the proper understanding of the text.

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PRACTICAL DIETETICS. With Special Reference to Diet in Disease. By W. Gilman Thompson, M. D. New York: D. Appleton & Co., 1895.

Physicians are relying more and more in their treatment of disease on Nature's methods of righting the disturbance of the human system by food adapted to each diseased condition, capable of supplying the waste by nutrition, easily assimilated, cleanliness, pure water externally and

internally, the vitalizing influence of sunlight, fresh, pure air and healthy surroundings. With these factors in full play and guided by intelligent minds, drugs are relegated to the second place, however useful they may be at times, given only in sufficient quantities to help Nature perform the cure. Under this modern system of treatment the sick room is relieved of half its terrors. However much we may differ from the author in the heavy dosing of his drug therapeutics, we are with him heart and soul in the clear, practical and thoroughly scientific methods of his Practical Dietetics. The work is timely, prepared with excellent judgment, and commends itself to every physician who desires to be in touch with the advancing spirit of the profession.

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THE POCKET MATERIA MEDICA AND THERAPEUTICS. A résumé of the action and doses of all officinal and non-officinal drugs now in common use. By C. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynæcology in the Detroit College of Medicine; member of the American Medical Association, etc. Second edition, revised and enlarged. Cloth, large 16mo, 367 pages. Price, post-paid, $1.00. Detroit, 1895: The Illustrated Medical Journal Co., publishers.

The second edition of this popular therapeutic work has had sixty-seven pages added to it. A new and complete cross-index has been prepared, which renders the quick-finding of a non-familiar drug possible. This is an important feature lacking in many ready-reference books.

The descriptive arrangement of the drugs is as follows: Alphabetically the drug, with its pronunciation, (officinal or non-officinal standing indicated), genitive case-ending, common name, dose and metric dose. Then the English, French and German synonyms. If a plant, the part used, habitat, natural order, botanic description, with alkaloids if any; if a mineral, its chemical symbol, atomic weight, looks, taste, how found, its peculiarities. Then the action and uses of the drug or compound, its antagonists, its incompatibles, its synergists and then antidotes. Then follow its officinal and non-officinal preparations, with their medium and maximum doses. Altogether it is a handy volume for physician, druggist or student.

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PHYSICAL AND NATURAL THERAUPEUTICS. The remedial uses of atmospheric pressure, climate, heat and cold, hydro-theraupeutic measures, mineral waters and electricity. By George Hayem, M.D.; edited by Hobart Amory Hare, M. D. With 113 illustrations. Philadelphia: Lea Brothers & Co., 1895.

We cannot do better than give the brief statement of the object and scope of this work embodied in the preface, with our conviction that the work will prove one of the most useful recently issued from the medical press:

"Every practicing physician constantly sees cases which should be sent to a health resort, there to gain the benefits of the mineral waters or change of climate. In other words, he sees clearly that remedial measures, such as the application of heat and cold, baths, electricity, will be of greater advantage to his patient than the administration of drugs. The object of this book is to provide in a concise form just what the physician needs in this respect, written by one of the foremost theraupeutists of the day in Europe. It embodies not only his own views, but also those held by Biss-Bardo, Fleming, the brothers Delmas and Winternitz in the chapter on thermic agents; Von Vienot, Lombard, H. Weber and Lindsay in the chapter on ærotherapy and climate, and by Durand, Fardel, Leichtenstein, Le Bret and Roterean on mineral springs. In the portion devoted to electricity, the views of standard writers are linked with those of the writer. It has been the aim of the editor to render the text applicable to the needs of the American physician, particularly by the addition of articles on American climate and mineral springs."

JARRETT KNOTT'S UNIVERSAL GRAPHIC RAILWAY GUIDE, Illustrated Itineraries and Skeleton Tours of all Important Routes for Travelers All Over the World; Official Time Table of Railways, Steamboat Lines, etc. Published monthly.

A prominent and familiar figure in Parisian society is Mr. Charles W. Jarrett-Knott, the popular editor of the "American and English Paris Directory and Guide," and other publications having for their object the improvements of relations and the arrangement of commerce between America, England and France. Mr. Jarrett-Knott is about to visit America in the interest of his work, which will be published monthly, and will contain the latest and most accurate information in a condensed form of the railways, steamboats and principal places of interest in the whole world. In the quiet of our own home, with the aid of Mr. Jarrett-Knott, we can map out a trip to any part of the world, the places of interest, the cost and the time, with almost unerring accuracy. In this connection we simply mention the fact, to which we shall refer later, that Dr. Middleton, of Paris, whose articles in the TIMES are now receiving the most favorable comments for the perfectly trustworthy information they contain, will next summer, if sufficient encouragement is given, organize a tour under his own personal supervision, for American physicians, to visit the principal health resorts and other centers of interest in Europe. Under the leadership of one so thoroughly familiar as Dr. Middleton by personal observation and study of all points of interest, the trip would be full of information and pleasure.

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# CORRESPONDENCE.

## POTENCIES—VIPER AND INSECT POISONS—THE DUAL ACTION OF CHAMOMILE.

MESSRS. EDITORS:

Your ridicule of a reputed cure of cataract by a single dose of sulphur 500° suggests the question—*Do high potencies cure?*

No one accuses me of mild medication when employing therapeutics outside of similars; yet I have seen the minute doses often demanded by that law produce remarkable cures.

Now, as a grain of the 3d centesimal represents $\frac{1}{1000000}$ of a grain of 'the crude drug, why should the faith that trusts so much *in so little*, become hysterical over a few more millionths reduction? Only the blindness of invincible ignorance dare deny the value of the 3d attenuation. In some diseases health is rapidly restored by other laws; but in the majority of bodily ills the best results follow the 3d to the 30th potency, applied according to the law of *Similia Similibus Curantur*.

The curative power of a few remedies, like sulphur, *can never be destroyed at any attenuation;* but drugs from the vegetable kingdom may lose force in high potencies, *unless bolstered by suggestion.* Still more sensitive are the viper and insect poisons, which scarcely bear *twelve* attenuations. As these precious medicines are rarely obtained in menstrums which preserve their venom in its full integrity, they are generally impotent in our hands. I have known a fresh preparation of the *Cuban tarantula* to act so promptly on an apparently hopeless case of diphtheria as to put anti-toxins to shame.

*When a man learns the therapy of the reptile world he will find perfect similitudes and masters of many malignant diseases.*

The dual action of chamomilla is well shown in the following case:

To an infant suffering during dentition, I gave a few drops of strong chamomile tincture in a glass of water. Instead of relief, each dose intensified the pain. The anxious parents called in an eminent Allopath who lived near by. On my return next day the mother said the doctor had given powders which quieted the baby at once. Anxious to know the remedy, I called upon the physician, and found him as open and above board as he was distin-

guished among men. Without hesitation he told me that a friend had induced him to try chamomilla 30[2] for irritable teething children, and the benefits derived from its use had surprised him. Chamomile being well indicated, *the tincture aggravated, while the thirtieth cured.*

It is passing strange that clear-minded men who *see so much*, yet, shackled by authority and tradition, *should accept so little!*

JOSEPH SEBASTIAN, M. D.

## A BULLET EXTRACTED FROM THE LEG OF A PROMINENT NEW YORK PHYSICIAN, WHERE IT HAD REMAINED SINCE THE BATTLE OF GTTTYSBURG.

DEAR DOCTOR:

With pleasure I comply with your request to give an account of the ball which has been, until recently, my inseparable companion since the battle of Gettysburg.

During the war, being a medical student and the son of a physician, I was constantly called to assist the medical staff, especially upon the battlefield.

Having no sentimental ideas of military respect for the surgeon's sash, I never relinquished the protection of my gun. When millions of missiles are flying from rifles and cannons, no one need flatter himself that these animated inanimates have any defined notions about courtesy to the surgical staff.

I was a member of the Second Georgia battalion, of General Wright's brigade. General Doubleday, who commanded the first army corps of the Union forces at Gettysburg, gives a vivid description of the charge of Wright's brigade in his history of Chancellorsville and Gettysburg.

To-day *brave soldiers* of the opposing armies meet in kindly fellowship, for they fought their battles when *war was raging*, unlike cowards, who fight only *when all danger is past*. A soldier's saying was: "These fellows who are so willing to shed their *last drop of blood* for the country, are mighty careful of the *first drop*."

On July 2, 1863, as our brigade advanced, Hancock's batteries opened fire with a storm of shell. One burst in the face of a soldier directly in front of me, not five feet away. Its smoke so completely hid me that those near thought I too was killed. Brains, blood and the shattered skull struck my breast with stunning force. I felt myself carefully to be sure I was really alive. In that instant I saw the poor headless body one moment upright, then it slowly sunk to earth.

Thanks to the good God! not one fragment of that ragged iron had touched me.

Regaining self-possession, I offered my services to a wounded man, then hurried onward, when, with a sharp sting, a minie ball pierced my left arm near the shoulder. Not thinking the wound serious, I pressed onward through a tornado of shot and shell.

Again I felt a rifle ball as it penetrated my right shoulder and came out behind my back.

Still unconscious of the severity of my wounds, I paused and wondered why so few had thus far fallen under such a heavy fire. Suddenly an officer lay mortally wounded before me. At my proffered help, he sadly shook his head and motioned me to go on.

On reaching the line of battle I found the brigade, having pierced Hancock's center, were desperately fighting the troops which were rushing in to fill the gap. The infantry rained frightful volleys into our ranks, while canister shot poured from the artillery.

A crushing blow at my left knee felled me. As I lay upon the ground, the incessant whizz of minie balls warned me to place my hard rolled blanket against the top of my head for protection.

Seeing the utter hopelessness of pitting one brigade against an army corps, General Wright withdrew to the main line—the first retreat he had ever made. A soldier named Turnipseed, who had just returned from a wedding trip, lay near me. Trying to be cheerful, I laughingly said to him: "It's a pretty hot place here, Turnipseed." While smiling to answer, a bullet's dreadful thug hushed the reply upon his lips—he was dead!

After nightfall an officer, looking over the field, spoke kindly to our wounded, and ordered their removal to a safer place. It was General Webb, of New York.

During all next day, July 3d, I lay helpless, with the fiercest of battles raging around me.

For some days the overworked surgeons were compelled to leave my wounds to my own and the nurses' care. When they did examine me it was decided the injury demanded immediate amputation of the leg, and I consented. Surgeon Burgomaster then came and advised waiting. The opening in the spongy tissue having by this time closed somewhat, he thought the ball might have rebounded.

The day after many of us were transferred to Chester, Penn. There we found the cleanest of hospitals and the kindliest and most skillful care. The inflammation and swelling of the knee had now become very great and the pain intense, but, within a few months, attention and care enabled me to go South on parole.

After a few years the wound in my leg ceased troubling me, except at long intervals. The wounds in my shoulders had rapidly healed.

During the summer of 1893 severe pains in my leg compelled care and absolute rest for ten days. The same occurred last year, and in both instances near the anniversary of the battle. This year the attack began later and was more persistent. After suffering for three weeks I called Dr. John C. Minor. He aspirated, and finding pus, made an incision. His probe soon discovered the ball. Enlarging he extracted an iron canister shot, three-fourths of an inch in diameter.

Dr. Minor thinks the ball must have made a circuit of the knee, as it seems incredible that it should perforate the head of the tibia.

The scar is on the upper and outer side of the bone, and for many years I have been able to feel a cyst, large as a small egg, close to the inner side and upper part of the tibia behind, the bone being quite rough near the cyst.

Possibly the ruptured cyst and burrowing ball caused my late sufferings.

Respectfully yours,

JAMES ROBIE WOOD, M.D.

*62 West Seventeenth st., New York, Oct, 14, 1895.*

P. S.—I add a letter which strongly illustrates the profound respect of a great man for the personal convictions of others, even though bitterly antagonistic to his own. It is a reply to a letter regarding a history of the battle wherein our relationship is mentioned wrote: "It is no fault of mine that you are thus publicly announced as the relative of a Confederate." He replied:

16 Feby., '82.

DEAR COUSIN:

Don't trouble yourself about the statement of the author. I shouldn't think of being offended at any such mention.

Of course I deeply regretted your being on what I thought the so grievously wrong side.

But your heart being there, I could of course only feel that you ought to act out your convictions, and I only think of you now as a sharer in the blood of which I have always been proud. Good-bye.

Yours,

*Dr. J. Robie Wood.* WENDELL PHILLIPS.

## THE IDENTITY OF HUMAN AND ANIMAL DIPHTHERIA.

Dr. Leon Gallez, surgeon of the Hotel Dieu at Chatelet, in Belgium,* calls attention to the fact that, if the identity of human and animal diphtheria be not scientifically established, no more is it allowable, in the present state of science, to affirm that they are two different affections. He believes, indeed, that in all probability these diseases are identical.

M. Degire, in his study on this subject, questions whether the fact of the difference which exists between the Klebs-Loffler bacilli and the microbes discovered in the diphtheritic products of animals, is sufficient evidence to disprove the identity of the two affections. He remarks

*Translation from the *Journal D' Hygiene*, Paris.

that many bacteriologists admit that the mophological and biological properties of certain microbes may be greatly affected and changed by the surroundings in which they develop.

Dr. Gallez builds upon this theory, and upon the well-established fact that human diphtheria may be communicated to animals and return to man, to make a supposition which, to his mind, would explain the numerous cases of contamination of man by animal, and would make them agree with the results of bacteriological researches.

According to his theory, the "spontaneous" diphtheria in animals would recognize as its true origin contamination by man, and would be perpetuated in the species with characteristics appropriate to the organisms in which they develop. (1.)

"Attractive as this idea may seem," adds M. Degire, "would it not be more reasonable to regard diphtheria as a generic infectious process, necessarily characterized by the production of false membranes, capable of appearing in several specific forms, and consisting of as many different kinds as there are different microbes or germs capable of determining the development of it?"

(1.) Just as there are two kinds of diphtheria in man; one, *genuine* and caused by the Klebs-Löffler bacilli, the other *false*, determined by other micro-organisms, in the same way there would exist among animals two distinct diphtheritic affections; one *accidental*, due to a contamination from the Klebs-Löffler bacilli contained in the false membranes of human diphtheria; the other, the diphtheria peculiar to animals, having its first origin in an accidental contamination of the animal by man. M. R. B.

# SOCIETY REPORTS.

## MULTILOCULAR CYST OF THE TESTICLE—FATTY TUMOR OF THE FOREHEAD.*

BY WILLIAM L. RODMAN, A. M., M. D.

*Professor of Surgery and Clinical Surgery in the Kentucky School of Medicine, Etc.*

The first specimen which I exhibit is a testicle removed from a patient æt. twenty-four years. The only feature of interest in the case is that the trouble proved to be a typical multilocular cyst of the testicle.

No. 2. Another specimen is a small fatty tumor removed from the center of the forehead of a patient today. Nearly all the growths which occur in this situation are of the fatty variety; in fact, I have never seen a tumor in the center of the forehead which was not fatty. Higher up on the scalp they are more likely to be sebaceous in character.

### DISCUSSION.

Dr. W. H. Wathen: I would like to have a little further information in regard to the first case, as to the causation, if known, progress of the case, how long the trouble had existed, etc.

Dr. W. L. Rodman: The first indications of disease in the testicle were noticed eighteen months before I saw the patient. It had the typical appearance, fluctuation, etc., that we get in cystic growths, and the fluid which came from it was colored, and of about the character we usually find in cysts of this nature. There were three or four cysts containing fluid.

The progress of the case after the operation was uneventful, the patient getting entirely well within two or three weeks.

Dr. W. H. Wathen: The specimen exhibited is interesting, because I infer it is rather unusual; the result will be perfect, and there will be no recurrence of the trouble. It is, I presume, a condition known as testicular adenomata, cysts arising in the paradidymis between the epididymis and the testicle, from the fœtal remains of the Wolffian body. In such cases there is no way of curing them except by removal of the testicle and the cyst. If not removed the cyst will grow larger, destruction of the testicle will continue, and by pressing the testicle to one side destroy the structures to such an extent that very few characteristics of testicular tissue remains.

Dr. Louis Frank: Why should this condition be called adenomata, and not cystomata?

Dr. W. H. Wathen: It is so described by J. Bland Sutton in giving the pathology of these growths. I do not know exactly why he should designate them adenomata; however, he does, and he is one of the best authorities upon matters of this kind.

Dr. Louis Frank: An adenoma is a new growth clinically, and starts as such. A cyst is merely a dilatation caused by secretion from some normal structure that pre-exists, or by effusion into structures.

Dr. W. L. Rodman: I do not know why this condition should be called an adenoma. Adenoma simply means an enlargement of the glandular tissue. This growth is merely a cyst growing from the capsule of the testicle itself. I did not go into the pathology of it, but it is rather different from tumors we usually find in this situation. Instead of being one large cyst and several smaller ones, as in this case, we usually have a great many very small cysts of the testicle, making what is called the hydatid cyst of Cooper. In this case, however, there was one large cyst and several smaller ones, and, as Dr. Frank has suggested, I would call the condition cystomata, just as we would had it occurred in the ovary or other glandular structures. It could not be called an adenoma, because no solid structure is apparent.

* Reported to the Louisville Clinical Society, by C. C. Mapes.

## DOUBLE PNEUMONIA FOLLOWING A SEVERE BLOW UPON THE CHEST.

BY J. W. IRWIN, M.D., LOUISVILLE, KY.

On Sunday, April 14, 1895, I was called to see a young man aged twenty-one years, and found him suffering with congestion of both lungs; they were evidently œdematous; face livid; lips swollen; eyes slightly protruding and glassy; pupils dilated; and respiration 56 to the minute. I advised him to remain in bed, that he was in the first stage of pneumonia, which has been prevalent in Louisville during the past winter.

The history of the case is that while on a spree Friday night previous, he met some friends, one of whom struck him a very hard blow on the chest and knocked him down. The blow was sufficient to stun him for a while. Notwithstanding his condition, he left his bed and went out of doors, and claimed that the open air improved him very much. Sunday evening at seven o'clock he had a severe hemorrhage from the lungs, and between that hour and midnight he lost nearly two quarts of blood; the hemorrhage was very persistent. Since then he has been expectorating blood, together with the characteristic streaked sputum of pneumonia. The prune juice expectoration also appeared and it has now nearly ceased. This was a case of double pneumonia, very intense in character, the patient having been in a condition near the point of death for a week.

I can hardly attribute the pneumonia to the blow, though the patient and his family seem to favor this view and have threatened suit against the assailant. I advised against a suit, believing that the case was one of pneumonia from the beginning, and not the result of the blow.

I mention this case particularly to get an expression from members of the Society on the subject, as to whether they have met with similar conditions following blows. I do not believe that such an injury could have produced the disorder from which this patient suffered. The upper lobes of the right lung, and the lower and middle lobe of the left were the parts chiefly involved. The bleeding came from somewhere in the bronchial tubes, but of its exact location I am not certain. There was no tubercular history, and the habits of the young man, so far as I could

learn, had not been bad. He had occasionally taken a drink of whisky, but this was not carried to excess.

DISCUSSION.

Dr. Carl Weidner: Hemorrhage often occurs in individuals without any history of an injury, and I think that the etiology in this case is so obscure that it would be hard to come to any conclusion without analyzing every symptom very carefully. I think the debauch, the over use of alcohol, may be considered one of the causes of the extreme congestion. We know by clinical and experimental experience that the free use of alcohol causes congestion of the pulmonary tissue, and it is possible that alone was sufficient to have caused the hemorrhage from the bronchial vessels, as this seems to have been. In addition, possibly the blow had a secondary effect, but this would be very hard to prove. The lapse of time between the injury and development of the disease would seem to have been too great for the blow to have had much effect. I would be very reserved about giving an opinion, as Dr. Irwin has stated, as regards a malpractice suit in a case of this kind.

Dr. J. M. Krim: I cannot account for the large amount of blood lost in the case reported; I do not think the blow could have caused it, neither do I believe congestion alone could have been sufficient to produce the quantity of blood coughed up, unless some of the blood vessels were ruptured by the blow, though had this been the case, it seems to me hemorrhage would come on soon after receipt of the blow.

Dr. P. Guntermann: I saw one case of pneumonia several years ago that possibly could be attributed to a blow. The pneumonia set in soon afterward, and was a very protracted case, but the man finally got well. I had recently a case of pneumonia in a young boy, which became in the course of a very short time a case of empyema. After resection of the rib had been made, and after his people saw what empyema was, they began to search for a possible cause. The history was developed that two days before the boy was taken sick with fever and a slight cough, he had received a severe blow from a rock thrown accidentally by one of his playmates, so that the boy came home doubled up with pain and had to lie down. Whether the blow really had anything to do with the trouble, I am unable to say. Certain it is that the boy developed a very severe case of pneumonia. After he had become convalescent, pleurisy set in, and in less than a week it was empyema, very severe and very extensive. Dr. Satterwhite drew off about a quart of pus with an aspirator, but finally had to desist, the pus becoming too thick to flow through the aspirator. We took him to the infirmary, and after resecting the rib probably two quarts of pus was removed.

Dr. J. W. Irwin: In closing the discussion: The history was that the boy had always been in perfect health before he received the blow. The blow was sufficient to knock him down, and he said it very much stunned him. The character of the blood was such as to prove that there could not have been much oozing before the hemorrhage came on. The blood was bright red and not clotted, presenting the characteristics of hemorrhage from pulmonary tissue. He had another hemorrhage last night, when he lost about a half pint of blood.

Dr. T. P. Satterwhite: I witnessed a peculiar occurrence to-day, showing the effect of fright. We all recognize that when persons are frightened that the sphincter muscles sometimes become relaxed, and that persons occasionally urinate and defecate unconsciously. A lady came to my office yesterday with a fissure of the rectum. She had been complaining for several months. I told her that I thought she ought to have the sphincter muscle dilated. The spincter was exceedingly tight. I informed her that dilation was a very simple procedure and I thought it would afford complete relief. To-day I took another physician with me, and before he had administered chloroform, to my surprise on opening the buttocks I found that the sphincter was dilated; and dilated without chloroform, purely from fright. Chloroform was administered and freer dilation was accomplished.

## FRENCH MEDICAL SOCIETIES.

*Fungoid Mycosis.*—This is a rare cutaneous affection, little known as yet, but fully deserves that the attention of the profession should be called to its peculiar characteristics. It is, in effect, among the mass of inveterate and relapsing dermatoses, designated by the common and convenient term of chronic eczema, whose eruptions are only the beginning of this disease. The observations of it would perhaps be more numerous, and the possibility of studying this curious dermopathia much more frequent, if its clinical history at least was not confined to the general reports of dermatology.

History: Fungoid mycosis is a conquest of French medicine. Alibert first described it in 1835, but he observed it in only one case, and confounded it with syphilitic lesions and the exotic dermopathies known at the time. This continued up to 1860, at which date Bazin defined its type clinically—that is, the eczematiform type.

About the same period, Hardz and Hebra, of Vienna, struck by the lichenoid appearances of the eruption, called it a hypertrophic lichen. Then appeared the memoir of Gerard, a pupil of Bazin, upon the same subject. A new phase in the study of this disease soon began, in the front of which was the French school. It was the histological phase, and the first histological study of fungoid mycosis, due to Ranvier, appeared in a report by Gillot in 1869. Then ensued the works of Landouzy, Debore, Demange, etc., followed by the publications of Tilbury, Fox, Post, During and Kaposi, etc. Very soon bacteriology sprang up to throw light upon the subject. Bacteriological researches were made, in Germany especially, by Koebner, Schiff, Hochsinger, etc. Symtomatology: In its ordinary form, and as formerly described, fungoid mycosis presents the following characteristics: At the commencement there are eruptions of urticaria or dry eczema, or simple erythematous spots of a vivid rose color, disappearing easily under pressure of the finger, sometimes small, scattered, isolated, and at other times large, irregular, confluent, without projecting prominence at first, but soon becoming elevated; there is slight desquamation upon their surface. There is a smarting, burning sensation, with itching, which causes scratching and secondary lesions, becoming traumatic. This is the first period, the period of premycosic erythroderma, and may continue of variable duration some months or even years. During the progress of the malady, and because of the incessant scratching, the derma becomes infiltrated, the skin thickened, with loss of its elasticity, and, in places, folds are formed; the rose spots become indurated, infiltrated and very prominent. There are tumefactions of dead integument, rugged in appearance. This is the second period of the disease, which Bozin called lichenoid, and which caused Hardz and Hebra to denominate the mycosis as hypertrophic lichen. The diffused and mammillated infiltrations may be absorbed and disappear, but may also reappear upon the parts first affected.

The swollen surfaces sometimes become enormously developed, and form veritable tumors. They assume an oval or hemispherical form, are of a vivid red, occasionally pediculated, may become confluent, and assume a general mammillated appearance.

In the groin and axilla, they often look like vegetating condylomata, covered with a thin and tense epidermis. They terminate by ulceration, or most frequently by an alteration and degeneration of the epidermis. Abscesses may form in the tumors, which open and suppurate. Generally painless, they are often the seat of a pruritus of variable intensity. This is the third period of the disease, and is its characteristic phase. Accompanying the tumors are large glandular swellings in the groins, axilla and along the neck. They usually begin during the period of erythema, but are wanting in certain cases. There is a tendency to baldness when the disease extends to the hairy regions. The general health is good up to the period of formation of tumors, then appears a peculiar cachexia, with diarrhœa, albuminaria, and progressive debility, which finally ends the life of the

patient, if death should not supervene from intercurrent disease. The resistance to treatment is disheartening, and a tendency to generalization is the rule. Most frequently the lesion begins by isolated points. In this affection the viscera seem to escape nearly always. In some autopsies of my cases there were no visceral alterations due to the mycosis itself. Clinical varieties: Fungoid mycrosis is susceptible of great variety, and the anomalies that this dermatosis presents occur in its first periods as in its last. The first is much the most fruitful of strange and interesting peculiarities. Sometimes by the side of a clearly eczematous eruption there will appear a veritable psoriasis. In another the patient will exhibit an erythroderma, the character of which is doubtful, complicated with cachexia, purpura, exfoliations, and with a pre-mycosis supervening upon the genuine type of eczema. At other times, if we follow up the evolution of the disease, the red lichen will terminate with the characteristic tumors, which will confirm the diagnosis. The appearances of eruptive fevers often mask a pre-mycosic erythroderma. The scarlatiniform type is the most frequent, and the celebrated observations of Hallopeau and Wickham are well-known in dermatology. In summing up the pre-mycosic eruption, and to fix a comparison, it may be said that in mycosis, as in syphilis, the tegumentary lesions may assume all the appearances known in dermatology.

*Pathological Anatomy.*—1. Bacteriology: Upon this point the study of mycosis is as yet incomplete, because the experiments thus far undertaken have not led to positive conclusions, for want of opportunity and of morbid specimens. Rinfleisch and Auspitz were the first to describe a micrococcus in mycosic specimens colored by Gram. Rinfleisch locates his microbe in the vessels alone. Auspitz, on the contrary, describes it as being in the constituent elements of the tissues. The work of Hammer, Schiff and Hochsinger in Germany, and Stillwagen in England are not conclusive. They saw either germs that had penetrated from without the altered integument, with nothing characteristic about them, or the microbes of putrefaction developed after death in the autopsic specimens. Inoculations too, up to the present time, have shown nothing positive. 2. Histology: This is much richer in certain convincing facts respecting the nature of fungoid mycosis, and no morbid entity, based upon pathological anatomy, seems to be more clearly established.

Mycosis is characterized by the substitution of a new and very vivid tissue for another tissue, the normal integument. There are none of the common lesions of inflammation, but a veritable neoplasm, similar to the type described as lymphadenoma, a tissue formed of innumerable round cells, and a framework analogous to that of a lymphatic ganglion. Such is the histological character of mycosis. The cells are small, 5 to 10m. in diameter, and their proliferation occurs by direct division. These cells are formed from a large mass, with many nucleoli, surrounded with a thin layer of protoplasm. Besides the small cells peculiar to mycosis, sections of the skin affected with pre-mycosic erythema, and colored with phenic thionine, have exhibited large cells of granulated protoplasm, contrasting by their size with the mycosic cells. Etiology: It may be admitted that from its histological character, fungoid mycosis is a lymphadenoma. After having been accepted by the majority of French dermatologists, this opinion is disputed to-day because there is an inclination to consider that this singular disease, which can generalize itself over the whole integument and the lymphatic glandular system, is a parasitic infection. Although this hypothesis is plausible, yet it should be accepted with reserve, because the germ of mycosis has not been found nor proved. The parasitic theory would doubtless allow a satisfactory explanation of the generalization, but if the germ exists it has as yet defied numerous researches to discover it. But parasitic or not, mycosis is, nevertheless, a lymphadenoma of the skin. In this there is an analogy with what occurs in cancer. The striking analogy which exists between fungoid mycrosis and lymphadenoma, and which seems to be sufficient to identify the two diseases, is not their only trait of resemblance. Clinical observation shows a common characteristic in both, which is the possible retrocession of the tumors. This singular phenomenon has never been observed in other malignant tumors except in lymphadenoma. P. Delbet seems to have had much confirmatory testimony by his experiments, as to the parasitism of lymphadenoma. He inoculated a dog with pure cultures of a bacillus found in the blood of the spleen of a woman dead from generalized lymphadenoma. He obtained general glandular hypertrophy, and found the glands filled with the inoculated bacillus in abundance. Sarcoma has a more rapid generalization than mycosis or lymphadenoma, but it invades all the organs. Sarcomatous deposits are found in all the viscera, but never mycosis. Moreover, sarcoma never recedes, and its beginning upon the integument is exceptional. As respects granuloma, mycosis never forms cicatrices, while granuloma ends by either the formation of a cicatrix or by a special degeneration. Such are the important differential characteristics upon which to base the points of distinction between mycosis, sarcoma and granuloma—progress, duration and prognosis. Mycosis is essentially progressive, and from an early period dates its generalization. Its duration may be short, or it may be prolonged for years; the prognosis is fatal generally. Bazin reported but one authentic case of permanent cure. The diagnosis is not difficult, except during the pre-mycosic stage.

*Treatment.*—It may be stated at once that no specific remedy is known for this disease. The treatment must be symptomatic. The strength of the patient should be kept up by tonics, the troublesome pruritus relieved by suitable regimen. All excitants forbidden, such as tea, coffee, alcohol, liquor, cheese, shell-fish, meat, etc. Milk diet, with occasional boiled vegetables or boiled meat.

*Remedies.*—Antipruriginous, phenic acid internally, as a drink or in syrup; phenic or salicylated pomades, 1 $\frac{1}{100}$ or 1 $\frac{1}{50}$. Bathing with vinegar, lotions of hot water with chlor-hyd., on the appearance of papules or mycosic tumors, especially if not ulcerated. A pomade of gallic or pyrogallic acid, $\frac{1}{10}$ or $\frac{1}{30}$, will hasten cicatrization (Vidal). The irritation produced by the pomade will sometimes necessitate its suspension. Surgical interference may be utilized to remove the tumors when they trouble the patient by reason of their locality, but their reappearance may be looked for in the same place or in the neighborhood. Parasiticide agents are of no avail. Sublimate, 1 cg. by hypodermic injection into the tumors, and by lotion, 1 $\frac{1}{100}$, produced no amelioration, nor has arsenic injected in the same way met with any greater success. The evolution of the mycosis towards its fatal termination must be expected, no matter what may be the treatment employed.

*The Phagocytic Theory.*—The phagocytic theory is to-day admitted by all authors, as regards the mode of defense of the organism against the microbes that invade it. Can the phagocytic function extend to an intoxication? Is there a difference in leucocytic reaction between the inoculated and the normal animal in which a mortal dose of toxine has been injected, and if this difference exists, can the differences of the results of experiment attribute to it the death of the normal animal on the one hand and the survival of the other? Is there, during the period in which an animal undergoes the inoculation of a toxic substance, a leucocytic reaction, which demonstrates that the organism is prepared to support a mortal dose of the toxine? The conclusions reached by recent complete and well conducted experiments tend to show that in animals submitted to inoculation by vegetable toxines, by bacterial, such as diphtheria and tetanus, by animal, viz., the virus of the cobra di capello, there are manifest leucocytic reactions that vary, accordingly as we consider the animal during the inoculation, after it, or that has received a mortal dose of it. During the period after inoculation, the animal undergoes a progressive hyper-leucocytosis that dimishes gradually. In the second experiment there is more or less reaction, according to the amount of inoculation. There is always a slight hyper-leucocytosis, often continuing at the same figure, without notable diminution, while the animal that receives a fatal amount presents a constant hypo-leucocytosis, which progresses to its termination in death, if this occurs within twenty-four hours

after the injection. Hyper-leucocytosis, if progressive and regular, is then a favorable prognosis. Progressive hypoleucocytosis is unfavorable, and the more or less numerous oscillations of the one or the other are the certain indications of death, but more gradual.—M. Chatenoy.

M. Grasset shows how the new pathogenetic ideas, due to the discovery of micro-organisms, accord with the vitalistic theory. He says: "If microbes are living and active agents, the human organism does not, because of that, abdicate its own vitality, and during microbic attacks it responds by the essentially vital processes, either locally or generally. In disease, the general condition exercises a preponderating importance over the local, and the local condition produced by the microbe is due to the vital functional activity of the organism, and not to microbic life."

Dr. Bourneville has published a most important and interesting clinical memoir, in which he compares the surgical with the educational treatment of idiots and imbeciles. He has collated eighty-two cases in which craniotomy was practised, and has arrived at the conclusion that but few results, and they of a doubtful character, were obtained. The operations were originally performed by Dr. Lanuelongue, with the idea of giving free play to the brain by the opening of the cranium. M. Lanuelongue supposed that the microcephia, a generic term by which he designated the different forms of idiocy, was due to a premature ossification of the cranial sutures. Dr. Bourneville carefully enumerates a series of twenty-two cases among those upon whom craniotomy was performed, and in which he did not discover any signs of premature synostosis, hence he concludes that the theory of Dr. Lanuelongue has no anatomo-pathological basis. Moreover, the lesions of the brain, that were often found, were not benefited by the operation.

Dr. Bourneville relates eleven cases in which a medico-pedagogic treatment was alone applied, and it was clearly shown that a much greater amelioration was obtained by this treatment than by craniotomy.

An additional memoir by Drs. Bourneville and Cornet, which treates of the sub-cutaneous injection of testicular liquid in thirty cases of epilepsy, is also equally instructive. Apart from two cases which did not pursue complete treatment, there remained twenty-eight which were injected with the liquid for a period of from six weeks to two months. According to d'Arsonval, if after a period of six weeks there is no result from this treatment of epilepsy it is useless to prolong it. In the twenty-eight cases there was a slight diminution in the number of attacks in eight of them, while the other twenty had more than before. In every case there was no amelioration in the mental condition and of their weight, taken before and after treatment. There was an increase in ten and a diminution in three.

In an extensive work of 200 pages, written by Drs. Bourneville and Noir upon hydrocephalus, the authors distinguished three different forms—simple hydrocephalus, scapho-hydrocephalus and symptomatic hydrocephalus. They give the history of nineteen cases, of which eleven belonged to the first, five to the second and three to the third form of the disease. According to the authors, in the majority of cases the effusion of the liquid occurs some months after birth, and the child, to all appearance in a normal condition of health, is suddenly attacked with meningitis or convulsions. The head gradually increases in size, up to the age of three to six years, then attains its largest dimensions. Ordinarily the child dies between three and six years from broncho-pneumonia or meningitis. As respects the etiology, cases of chronic hydrocephalus spring from mental or nervous diseases and from alcoholism, the exciting causes being principally chronic inflammation of the intraventricular meninges and compression of the vessels at the base of the brain by the development of a tumor. The treatment by trepanning and drainage is useless, and the result, in most cases, is fatal. Compression of the head, the daily frictions with mercurial ointment and the administration of calomel, with the use of salt baths, massage of the limbs and tonic medication, have obtained the best success.

*A Case of Pregnancy with Integrity of the Hymen.*—Such cases are rare, but not absolutely exceptional. M. Beck reports an example. A woman of thirty-two years, menstrually regular since her eighteenth year, after the third year of marriage, discovered the arrest of her courses, and felt a weight in the genital organs and lower limbs. M. Beck discovered pregnancy at the third month, despite her denials, and from the fact that the vagina was closed by a resisting hymen, through the opening of which only a small sound could pass. He was compelled to have recourse to the rectal touch in order to explore the uterus. On the day of her marriage, her husband, after using efforts to break the hymen, was seized with hemaptysis. Having been advised not to renew his efforts, he did not venture upon a regular coitus, but limited his connections to the entrance of the vestibule, and hence it was that she did not believe herself to be pregnant. The result proved the correctness of the diagnosis, and it became necessary to open the hymen by a crucial incision, in order to permit the passage of the child.

*Treatment of Diarrhœa by Rectal Injections.*—In the employment of this method, the remedy that has always given the best results, is the sulphophenate of zinc, in the proportion of ten to thirty grammes to two or three pints.

In certain circumstances, the water should be warm, at other times it should be as hot as the intestine can bear, and again, it may be moderately cold; all depends upon the acuteness of the inflammation and the endurance of the patient. Moreover, we see certain individuals bear well the application of cold water, while others are more benefited by the warm; one solaces and comforts the one, and the other the other. It is necessary to be careful, when cold water is applied, not to cause rigors in weak persons, nor to cause fever by the warm water. In many cases, the success of the treatment depends absolutely on the skill and care with which the injection is given. Better to let the water pass gently into the intestine than to inject it forcibly, for the three following reasons: (1) If force be employed, the intestine will immediately resist, and the injection be expelled. (2) The intestine will be wounded so much as to render subsequent injections impossible. (3) The irritability of the terminal position of the intestine will determine a reflex irritability of the terminal position of the intestinal tube, that will result in ulceration of the rectum, and produce diarrhœa, and so the patient will be in a worse condition than before the operation.

In cases of chronic diarrhœa, where the patient presents great emaciation and can digest very little nourishment, so that the want of nutrition contributes greatly to the duration of the disease, this method cannot be too highly recommended. It is a fact worthy of consideration that a small rectal injection, say, of one or two ounces of an emulsion of iodoform and olive oil, in the dose of 5 grs. to the ounce, will immediately cause an abundant watery stool, will prevent all tendency to tenesmus, and by the slight absorption of the iodine that occurs, will exercise a happy influence upon the catarrhal condition, and the cause of the symptoms we have been treating.

*The New Rights of Female Physicians in Russia.*—The announcement is made of the opening in 1897 of an institute of female physicians at St. Petersburg. The privileges to be accorded to women who will obtain the diploma of doctor of medicine, after having followed the course of instruction at the institute and undergone the examinations required, are much more considerable than they will actually enjoy. Up to the present time, they have found the conditions to be unfavorable. Their right to practice medicine was poorly defined, and gave rise to a number of misunderstandings. Sometimes it was the "Zemstros" who refused to admit female doctors, under the pretext that they did not possess regular diplomas. Sometimes the druggists would refuse to deliver powerful drugs upon their orders, on the pretense that they had no right to practice except where there were no physicians. However, these disputed points are completely cleared up, and henceforth the only functions interdicted to women will be those of physicians in chief in the general hospitals and in the male sections. They will not be permitted to exercise their functions in the councils of reform, nor as medical experts, without having been invited by the tribunals, but they may be united with reg-

ular physicians in the medical examination of women and children. In all other respects, their rights will be absolutely the same as enjoyed by physicians, and, what is especially worthy of interest, they may be placed at the head of special institutions for the diseases of women and children. It is certain that this authorization will be of great utility, particularly among the hospitals, and, above all, the maternities, of which women physicians will have the direction.

*The Dangers of Artificial Leanness.*—Fat men, do not try to make yourselves thin. It is thus that Professor Eulenbourg, of Berlin, adjures you in one of the last numbers of the *German Medical Weekly*. It is not that he would advise you to persist in your obesity, but he has discovered that all the means that you may employ to be rid of it would have the effect of ruining your health, and even shortening your life. Against all these he would place you on guard. For example, he is indignant that permission should be given to German druggists to sell, without an order, to the first comer, tablets and potions which might perhaps cure obesity, but which injure the organism and produce grave troubles of the nerves and the blood, for all of them contain some poison, and it would be much better to be fat and healthy than a lean valetudinarian. Among other examples of the disastrous effects of the cures of obesity, Dr. Eulenbourg cites the case of a well-known dramatic artist, who, not content with the opulence of form which Nature had given him, became so thin that he died in consequence. But it is not the treatment alone that is dangerous. Scarcely has the man the opportunity to enjoy his diminishing obesity, before disquieting symptoms begin their appearance, his humor alters, he becomes nervous, impressionable, and from day to day he has no more the feeling of being in his natural state.

Here is the sad experience of a rich banker of Berlin: "On ceasing to be obese, he lost the calm self-possession, which was the basis of his character. An unhappy irritability affected him, and made him as unrecognizable from a moral point of view as he had become physically. This was soon followed by other more profound trouble of the organism. What prevented him from being a man of influence and force of character, may be judged by the anecdote that is reported of him by the *Berliner Tageblatt*. His cure had so completely and so suddenly delivered him of his obesity, that all who met him were amazed, and that twenty times a day he had to repeat the regimen he has pursued. So, in order to escape this tiresome repetition, he conceived the ingenious idea of printing on a square piece of paper, the detailed history of his cure. So when he was asked in the street how he had been delivered from his fat, in place of answering he took from his pocket the printed paper, and made his friend read it.

This anecdote is amusing, and the invention of the Berlin banker is sufficient of itself to make excuse for all the cures against obesity. This practical man has realized by instinct the dream of our dearest French poets, and has inaugurated the method of ideal suggestion, that consists in exchanging, upon all subjects, small strips of paper on which are written ready answers in advance. But the medical suggestions of Prof. Eulenbourg are nevertheless of a grave character. It seems to be clearly proved that we cannot make ourselves thin with impunity. Nature creates the fat and the lean, and it is the part of wisdom for one and the other to resign themselves to their condition. But just here humanity seems to fail, and it is to be feared that the most serious discoveries, as well as the most dangerous advertisements, will fail to prevent people who are too fat from making themselves thin, no matter how. Why did not Prof. Eulenbourg, instead of discovering the dangerous chemical properties of the remedies for obesity, try to discover that obesity was graceful, and more beautiful than the opposite state. Upon this condition alone would his advice be heeded. And after all, who can prove the æsthetic superiority of the thin over the fat? That's but a matter of fashion, the result of a new taste, that may change from one year to another. Is it not time to honor the ancient ideal of fat beauty? Would it not prevent the disastrous effects of all the remedies for obesity? J. A. C.

# *TRANSLATIONS, GLEANINGS, Etc.*

## RETROSPECTIVE THERAPEUTICS.

*By Alfred K. Hills, M.D., Fellow of the Academy of Medicine, New York.*

**Glycerine in Gravel.**—Dr. Heymann (*Rev. De Ciencias Med. De Barcelona*) has employed glycerine in renal lithiasis, on account of its property of dissolving uric acid, and also passing unaltered through the kidneys. He records fourteen cases treated by this method. He summarizes his conclusions as follows:

The first effect of its ingestion is to increase the thirst. In those suffering from stone in the kidneys pains appeared in this region, being limited to the side affected. The quantity of urine was increased, and after a varying time of nine to twenty-four hours, small calculi were expelled. In ten out of these fourteen cases he obtained favorable results. The pains were not as severe as those of renal colic, while the urine, after its ingestion, contained neither albumen, sugar nor hæmoglobin. Even after three to four hours the presence of glycerine could be discovered in the urine in appreciable quantities. A large quantity of mucus was also noticed. Based upon these results he regards glycerine as the most efficient means of treating renal lithiasis.

**Turpentine in Post-Partum Hemorrhage.**—Dr. N. Mayne, in *Trained Nurse*, says: "For some years I have used spirits of turpentine in post-partum hemorrhage, and in every case with the best results. When the ordinary means—friction over the uterus, irritation of the uterus by introduction of the fingers, cold, hypodermic injection of ergotin, etc.—failed, by saturating a piece of lint with the turpentine, introducing it in my hand into the uterus and holding it against the walls, rapid contraction took place, and all hemorrhage instantly ceased. In one or two cases, when the patient was almost pulseless, it seemed to act as a stimulant. On no occasion did this action fail, nor did it cause the slightest inconvenience except in one when the side of the patient's thigh was slightly blistered by some that came in contact with it, but it gave very little annoyance. I consider it is much quicker and surer in its action than any other remedy, and does not cause any injurious result, and is much more easily applied. In country practice, getting hot water or using injections, often means loss of time.

**Stoppage of Hemorrhage After Tooth Extraction.**—Dr. James McNaught advises, in the *British Medical Journal*, a simple method of checking hemorrhage after the extraction of teeth. It consists in passing a double silk thread through both sides of the torn gum, either with an ordinary curved needle or a handled needle, and then tying firmly over the alveolar border. In none of the cases in which this method has been employed has it failed to stop the bleeding immediately and permanently. The stitch may be removed at the end of forty-eight hours.

**Sulphur Baths in the Treatment of Whooping Cough.**—Josset (*Semaine Méd.*) advises the use of highly sulphurous baths in this disease, as he has employed them for fifteen years, and they have invariably given him favorable results. The proper quantities of the potassium polysulphide and water for the bath at different ages are as follows: From three to twelve months, half an ounce of polysulphide to ten quarts of water; from one to two years, three-quarters of an ounce to fifteen quarts; from two to four years, an ounce to twenty-three quarts; from four to six years, an ounce and three drachms to thirty quarts; from six to eight years, an ounce and six drachms to thirty-eight quarts; from eight to ten years, two ounces and a drachm to forty-five quarts. The temperature of the bath should range from 96.4° F. to 97.8°, and its duration should be from twenty-five to forty-five minutes. The patient must take a bath every day, and in getting out of it every precaution must be used to prevent a chill. Recovery is said to occur within two weeks.

**Tabes Dorsalis.**—Dr. Hirst, in his recent admirable treatise, says: "If a person have paroxysmal vomiting and complain occasionally of violent rheumatoid pains in the legs, we should examine more carefully for tabes, and we will frequently be surprised at the ease with which we can make the diagnosis, and wonder that we had ever been under the impression that the patient had simply chronic gastritis and rheumatism."

**Diagnosis of Appendicitis.**—(*Kan. Med. Jour.*) The point of greatest pain on pressure will be found at the "McBurney point," midway between the anterior superior spine of the ilium and the umbilicus. Circumscribed tenderness at this point is considered by McBurney as almost pathognomonic of appendicitis.

An oval tumor of variable size, usually small at first, can generally be detected beneath "McBurney's point," but its absence should not exclude the disease. A few cases have marked symptoms of intestinal obstruction. Rigidity of the abdominal muscles on the affected side, McBurney considers an important symptom.

## RETROSPECTIVE DIETETICS.

**Diet in Typhoid Fever.**—Dr. Jos. Adolphus, in *Chi. Med. Times*, says: The thermometer is of incomparable value as a guide in feeding typhoid fever patients. The time to push food is during the intervals when the temperature is lowest, then digestion and assimilation are most active and food does most good. When temperature is highest these functions are much in abeyance. At these times I find it best not to crowd food, yet often when the heart and respiration are weakest, during these high temperature periods, a vast deal of good can be accomplished by giving the patient rich beef essence, diluted with an infusion of green or black tea of best quality. Over these high heat depressions the cold bath has a wonderfully benign influence, backed up with proper food.

A soft boiled egg is a valuable food, relished by many fever patients at certain times. Put a fresh egg in a large tea cup, pour full of boiling water, let stand covered several minutes (four to six). The yolk and white will be sufficiently cooked, soft and semi-fluid. Season to taste. Add a little onion juice to liven the flavor. Some patients will take the whole at a meal, others only a part.

Bake a ripe apple, feed the soft pulp. This is an admirable change, besides being easily digested and a good fillip to the stomach.

Pap is made by rubbing up to a smooth paste two or three tablespoonfuls of first-class flour in water to the consistency of cream. Pour this into a mixture of equal parts of boiling milk and water, stir and cook slowly for half an hour. This pap has high proteid and carbon values, serving an excellent part as food, used also as a diluent of bouillon and essence. In the meantime be sure the patient is made to drink sufficient water during the day and night, not waiting till it is called for, but even forcing it on him. Even half a wineglassful often repeated is certainly good for him.

**Enemata of White of Eggs.**—Dr. J. Ashburton Cutter writes in the *Journal of the American Medical Association:* "Albumin of eggs is valuable to feed patients when other forms of nourishment cannot be taken, or to reinforce other nourishment. I have known patients to take the whites of eighteen eggs in one day with evident advantage; in some cases the result appeared almost life-saving. Exhibition by the mouth is made in three ways: 1. Raw. 2. Raw with milk. 3. Dropped in boiling water and slightly cooked. Enemata of uncooked whites I have lately used with decided benefit. Administration by a hard rubber syringe. Eggs vary in size and weight, and should be sold by weight; the albumin of an egg varies in bulk from one-half to one ounce as eggs run. Drugs can be administered with the raw albumin; sometimes a little laudanum is needed, but rarely, to quiet the bowel. Patients state that an enema relieves the faint, gone feeling in stomach, and such relief lasts longer than when the whites are administered per os."

**Fruit in Dysentery.**—"I desire to draw attention to the value of certain sorts of fresh fruit in chronic dysentery," writes Dr. Arthur DeButts in the *Lancet*. "Personal and professional experience shows that such are of the greatest value. I may specify strawberries, grapes, figs, and, if they can be so classed, tomatoes, these being all seed fruits, as distinguished from stone fruits Of course, they must be in absolutely good condition. For some years past I have made use of these largely in treating chronic dysentery and diarrhœa, with most happy results. The idea is not original, but was impressed on me by the late Dr. Saumarez Lacy, of the island of Guernsey, who, I believe, had practiced this treatment for many years."

**The Preparation of Meats.**—Butcher's meat (in France) is prepared, divided and arranged in the shops in such a manner that it never suggests slaughter. It is a rare thing for one to see a stain on counter, bench or floor. The mode of killing the animals probably has something to do with this freedom from moisture and dripping. Maria Parloa, in an article on "The Science of French Cooking," in *The Ladies' Home Jonrnal* for October, says the animals are not bled before being killed, as might be inferred from the absence of moisture, but they are killed in such a manner that veins and arteries are emptied quickly and thoroughly. After this the animal is *bouffée*, that is, filled with wind. The large arteries are pressed open, and the points of large bellows are inserted into them. While the bellows are being worked a man beats all parts of the carcass with a flat stick. This is to distribute the air in all parts of the flesh. All this work is done very rapidly. The inflating of the animal in this manner gives a fuller and firmer appearance to the meat, and, I fancy, empties the veins and arteries more effectually than they would otherwise be. The French use very little ice, and meats are kept only a few days at the most. The best of beef in France does not compare with American beef, but the veal is superior to anything we have. It is valued more highly than any other product of the butcher. But no matter what the viand, when it comes to the hands of the cook it is so prepared that she has but little to do to it except to cook it.

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**Disastrous Results Following Whitehead's Operation for Piles.**—Andrews (*Columbus Medical Journal*, vol. xv., No. 3, 1895), has secured the opinion of a large number of surgeons, both in this country and Europe, in regard to the disastrous results that are apt to follow Whitehead's operation. The replies include two hundred cases, of which the following is a summary:

Loss of the special sense by which the patient should be warned of evacuation and enabled to prepare for it, eight cases; incontinence of flatus and fæces, twenty-three cases; paralysis of the sphincter, four cases; chronic inflammation of the rectum, one case; failure of union of the wound by first intention, with retraction of the edges of the wound, forming a contracting tubular ulcer with stricture, nine cases; other ulcers, two cases; irritable and painful anus, twelve cases; eversion of the mucous membrane, four cases; neuralgia of the pelvic and inferior extremities, two cases; general neurasthenia, one case; fatal peritonitis, one case; non-fatal septic results, five cases; fistula in ano, one case; reported as having bad results without accurate description, 127 cases; total, 200.—*Therapeutic Gazette.*

**A Shorter Scale for the Clinical Thermometer.**—This is advocated by Dr. Dr. Elmar C. Fahrney, in the *Med. Record*. "Why?" he asks, "is the thermometer encumbered by so large a range of degrees? Is the downward reading to 95° F. ever needed? And how very rarely has a physician occasion to use the scale above 107° F.? Start the scale at 98° F., and stop at 108° F., and there are only nine degrees to be recorded on the thermometer, commencing at nearly a degree below normal, and including the point of high degree, rarely exceeded. Such a scale would satisfy the demands of all ordinary cases of the busy practitioner; would permit of the degree space being much larger than now made; would materially simplify the reading of the temperature, which needs often to be done hurriedly and in the sick room, where the light is insufficient for easily seeing the small

markings, and would especially allow of the divisions of the degrees to be made more distinct, and thereby facilitate the correct reading of the fractional parts of the degrees, and afford the opportunity of a far more accurate record of the variations of the temperature. Further, if the scale included only 9° F. and the degree spaces were of the same size as now ordinarily made, it would permit of a shorter thermometer, that might be desirable to many. If deemed necessary, a thermometer indicating from 95° to 110° F. could be kept for the rare cases requiring such a range.

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**Detection of Blood Stains in Medico-Legal Cases.**—The detection and demonstration of blood spots on rusty iron is made more difficult by the fact that the iron renders it impossible to obtain hæmin crystals. F. Gautier (*Zeit F. Anal. Chem.*) states that in such cases hydrogen peroxide furnishes a certain test of the absence of blood. The slightest trace of blood, on being wet with a solution of hydrogen peroxide, instanteously releases oxygen, the minute bubbles of which may be seen with the unaided eye. These bubbles collect on the surface of the drop, which presently, under a magnifying glass, appears quite foamy with them, and looking white, even to the unaided eye. The technique is very simple. A portion of the suspected blood substance—a slight scraping is sufficient—is placed on a glass slip, the back of which is covered with black paper. Cover the suspected material with a drop of weakly alkaline water, and let stand for a few minutes, or until the substance is softened, and then add a drop of peroxide of hydrogen solution. If there is the slightest trace of blood present, the globules of oxygen instantaneously appear, and they are so characteristic that any confusion of them with air bubbles is impossible. If the reaction does not occur it is a certain demonstration of the absence of blood. It is to be added that the appearance of the reaction is not a demonstration that blood is present, as other animal liquids behave in the same manner.

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**Tetanus Treated Successfully with Antitoxin.**—Dr. C. J. Timmerman, in a paper read at a meeting of the Montgomery Co. (N. Y.) Medical Society, reports a case of tetanus in a human subject, in which the use of tetanus antitoxin was followed by excellent results. The patient had received a severe burn, which had been dressed, before the doctor arrived, with scraped raw potatoes fresh from the cellar—"a most excellent habitation for the bacilli of tetanus," remarks the author. Seventeen days afterward the patient complained of a stiffness of his jaw, which he had noticed for several days. The advancing tetanic symptoms were at first so well controlled by physostigmine, morphine and chloral that it was not until three weeks after the injury that the antitoxin was used. There was an apparent fixation of the muscles of respiration, and the patient was almost unable to breathe; nearly all the muscles were in a constant state of spasm. The doctor administered anodynes "with a more free hand," but the patient then grew so much worse that he availed himself of the only remaining chance. He gave the first injection of 25 c.c. of tetanus antitoxin, in the lateral part of the abdomen; the serum was very rapidly absorbed, and later he gave another 25 c.c. The following morning he gave 10 c.c., and intended to give the remaining 15 c.c., but the patient was so exhausted he waited until the next morning. A week after the initial dose had been given 10 c.c. more of the serum was injected, and in the evening 15 c.c., when the spasms were almost subdued. Only chloral was used afterward, and the patient was convalescing. Dr. Timmerman believes this to be the first case in this country where the tetanus antitoxin has saved human life.

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Temperance and industry, mixed with good nature, are excellent physicians.

## CASTANEA VESCA FOR WHOOPING COUGH.

Dr. Ingalls, of Bridgeport, Conn., contributes the following valuable experience with castanea in whooping cough:

Castanea vesca or fluid extract of chestnut leaves was first recommended by G. L. Close in 1862. Since that time it has been used by the profession to some extent, but not as generally as it should be.

The leaves have little smell and a slightly astringent and bitter taste, so that they are not offensive to children. Castanea may be dispensed in the fluid extract, the infusion, and the Homœopathic tincture; the latter I think by far the better preparation. Of the fluid extract, ten drops may be given four times a day in a little sweetened water. Of the infusion, U. S. D. 94, Dr. Unzicker prepared an infusion with three or four drachms of the leaves and a pint of boiling water, and gave of it, well sweetened, as much as the child would drink. It is a habit of mine to put one drachm of the Homœopathic tincture in a bottle containing six ounces of distilled water, shake, and give one teaspoonful every hour the first day and every two hours thereafter.

Of twenty-five cases, three under six months, six under two years, the others from two to fifteen years of age, castanea vesca cured each and every one in from eight to fourteen days.

In experimenting with castanea in other coughs, I have not seen the slightest improvement. Its sphere of action, therefore, would seem wholly in the cure of whooping cough.

## *MISCELLANY.*

—Soap of almost every kind possesses excellent disinfectant properties.

—The laboratory of the Johns Hopkins University was recently destroyed by fire and the building badly damaged.

—The medical department of the University of Nashville, has severed its connection with Vanderbilt University, and will erect a building of its own in the near future.

—The Milner-Fothergill gold medal in therapeutics has been awarded by the University of Edinburg to Dr. Edmund Smith, of York, for his essay on the digestive ferments.

—William Lester, a Philadelphia editor, can write with both hands at the same time, and, more than that, can write in this way two entirely different paragraphs on entirely different subjects.

—Says the *Journal de Medicine de Paris:* "We have serious reasons for believing that adhesion to exclusive bacillary pathology does not obtain better results than clinical medicine in the great majority of cases, and, moreover, compromises the constitutions of our patients."

—Rabies is said to be increasing in England. In the first five months of the year 1892, there were only eleven cases reported. During the same period of the following year there were thirty-seven cases, while in the first half of 1894 the number of cases reported was eighty, and this year it is 373.

—A case is mentioned in which scarlet fever was apparently communicated by a letter written by a mother (in whose family there were two cases) to a friend a hundred miles away. The envelope of the letter was given to a child as a plaything. That child died from the same disease, and this was the only possible means of infection.

—Dr. Welch, the bacteriologist for Johns Hopkins Hospital, has demonstrated that germs will not grow in the immediate vicinity of silver. His discovery is made use of in the dressing of aseptic surgical wounds, by placing silver foil immediately in contact with the closed incision in sheets about four inches square. The other aseptic dressings are then applied.